Los Alamos
NATIONAL LABORATORY
EST.1943

Environmental Protection Division
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87545
(505) 667-2211/FAX: (505) 665-8858

Date: February 5, 2007
Refer to: ENV-DO:07-003

Mr. Edward Horst
Manager, Enforcement
New Mexico Environment Department
Air Quality Bureau
2048 Galisteo St.
Santa Fe, New Mexico 87505

SEMI-ANNUAL MONITORING REPORT FOR JULY – DECEMBER, 2006
AIR QUALITY TITLE V OPERATING PERMIT P100-M1
IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)

Dear Mr. Horst:

Enclosure-1 contains the Los Alamos National Laboratory's Title V Operating Permit semi-annual monitoring report for the period **July 1 – December 31, 2006**. This submission is required by permit condition 4.2 of NMED Operating Permit P100-M1 dated June 15, 2006, and is transmitted within the allowed 45 days after the end of the reporting period, as specified in permit condition 4.3.

One deviation was identified in the deviations section of this report. The deviation refers to the degreaser unit at TA-55 and the ability to meet the freeboard ratio. LANL Ecology and Air Quality (EAQ) staff met with you to discuss the compliance approach currently used for the degreaser and whether this approach requires EPA approval. LANL will notify EPA Region 6 and request approval for the alternative measures. We have contacted Michelle Kelly, Air Enforcement Section, EPA Region 6, and will send a letter to her requesting approval.

If you have any questions or comments regarding this submittal or would like to discuss the submittal in greater detail, please contact Steve Story at 665-2169.

Sincerely,

L. Wilburn for

Victoria A. George
Division Leader
Environmental Protection Division

SLS:alb

Enc: a/s

Cy:
V. Bynum, PADOPS, w/o enc., A102
R.Watkins, ADESH&Q, w/o enc., K491
S. Fong, DOE-LA-AO, w/o enc., A316
P. Wardwell, LC-ESH, w/o enc., A187
D. Wilburn, ENV-EAQ, w/o enc., J978
S. Story, ENV-EAQ, w/o enc., J978
D. Paulson, ENV-EAQ, w/o enc., J978
K. Gorman-Bates, ENV-EAQ, w/o enc., J978
M. Stockton, ENV-EAQ, w/o enc., J978
J. Stanton, SSS-AE-V02, w/o enc., A199
R. Costa, SSS-AE-V02, w/o enc., A199
IRM-RMSSO, w/o enc., A150
ESH&Q File, w/o enc., K491
ENV-MAQ Title V Monitoring Report File, with enclosure
ENV-EAQ File

Enclosure - 1

Los Alamos National Laboratory's
Title V Operating Permit
Monitoring Report for the period
July 1 – December 31, 2006

LA-UR-07-0629

Approved for public release; distribution is unlimited.

Title:	Semi-Annual Monitoring Report July 1 - December 31, 2006 Air Quality Title V Operating Permit P100M1 Los Alamos National Laboratory
Author(s):	David Paulson, ENV-EAQ
Submitted to:	Mr. Edward Horst Manager, Enforcement New Mexico Environment Department Air Quality Bureau 2048 Galisteo St. Santa Fe, New Mexico 87505

Los Alamos National Laboratory
Operating Permit P100M1
Semi-Annual Monitoring Report
July 1 – December 31, 2006

Identifying Information

Source Name: Los Alamos National Laboratory County: Los Alamos.

Source Address:
City: Los Alamos State: NM Zip Code: 87545

Responsible Official: Victoria A. George Ph No. (505) 667-2211 Fax No. (505) 665-8858
Technical Contact: Steven L. Story Ph No. (505) 665-2169 Fax No. (505) 665-8858

Principal Company Product or Business: National Security and Nuclear Weapons Research Primary SIC Code: 9711

Permit No. P100M1 {IDEA/Tempo ID No. 856} Permit Issued Date: April 30, 2004
M1 June 15, 2006

Certification of Truth, Accuracy, and Completeness

I, Victoria A. George certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached semi-annual monitoring report are true, accurate, and complete.

Signature Date: 1/31/07

Title: Division Leader, Environmental Protection Division

Sources (by permit section)

1. **Asphalt Production**
2. **Beryllium Activities**
3. **Boilers and Heaters**
4. **Carpenter Shops, TA-3-38 & TA-15-563**
5. **Chemical Usage**
6. **Degreasers**
7. **Internal Combustion Sources**
8. **Data Disintegrator, TA-52-11**
9. **Power Plant at Technical Area 3 (TA-3-22)**

Deviations

Attachments

- **A: Asphalt Plant Opacity Reports**
- **B: Beryllium HEPA Filter Tests Results**
- **C: Boilers and Heaters Natural Gas Usage**
- **D: Carpenter Shop Hours of Operation**
- **E: Degreaser Solvent Usage**
- **F: Internal Combustion Generator Hours of Operation**
- **G: Data Disintegrator Box Throughput**
- **H: Power Plant Natural Gas and Fuel Oil Usage**
- **I: Power Plant Opacity Reports**

1. Asphalt Production

Permit Section	Monitoring Required	Monitoring Performed
2.1.4.1	Perform monthly six (6) minute opacity readings for each emission point having opacity greater than zero as determined by EPA Method 22.	Monthly opacity reports are provided as Attachment A. Monthly six minute opacity readings are taken using the required EPA Methods.
2.1.4.2	Monitor the differential pressure (inches of water) across the baghouse by the use of a differential pressure gauge, in accordance with condition IV.C.2 of NSR permit number GCP-3-2195G.	A differential pressure gauge is in place to continuously monitor the differential pressure across the baghouse as required by NSR permit GCP-3-2195G condition IV.C.2. The differential pressure is recorded twice each day during operations, once in the morning (or following the start-up of operations) and once in the afternoon (or prior to shutting operations down), as required by NSR permit GCP-3-2195G condition IV.D.2(e). Records are available on-site for NMED inspection.
2.1.4.3	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	LANL has certified opacity readers on-site who perform opacity readings using 40 CFR 60, Appendix A, Method 9 to determine compliance with the opacity limitation.

2. Beryllium Activities (Permit Section 2.2.4)

Source	Monitoring Required	Monitoring Performed
TA-3-29 Chemistry and Metallurgy Research Facility	A log shall be maintained during operations which indicate the number of Be samples processed.	A log is maintained indicating the number of Be samples processed. The log is available on-site for NMED inspection.
TA-3-66 Sigma Facility	A log shall be maintained during operations which show the number of metallographic specimens used in the polishing operation and the weight of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations.	A log is maintained showing the number of metallographic specimens used in the polishing operation. Logs are maintained showing the weight of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations. Logs are available on-site for NMED inspection.
TA-3-141 Beryllium Technology Facility (BTF)	Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions.	The BTF is equipped with a continuous emissions monitor to measure beryllium emissions. The monitoring system is operated in accordance with LANL Quality Assurance Project Plan ESH-17-BM and emission results are provided to NMED quarterly. Submissions for this period were provided to NMED in reports dated August 7, 2006 [ENV-EAQ:06-218] and November 21, 2006 [ENV-EAQ:06-310]
	Cartridge and HEPA filters will be equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while	Cartridge and HEPA filters are equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans

Source	Monitoring Required	Monitoring Performed
	the exhaust fans are in operation.	are in operation.
TA-16-207	Project files shall be maintained of components prepared for testing.	Project files are maintained of components prepared for testing. Files are available on-site for NMED inspection.
TA-35-87	A log shall be maintained during operations which show the number of beryllium filters cut.	A log is maintained showing the number of beryllium filters cut. The log is available on-site for NMED inspection.
TA-35-213 Target Fabrication Facility	Records of the stack emission test results (see Condition 2 of NSR Permit No. 632) and other data needed to determine total emissions shall be retained at the source and made available for inspection by the Department.	Records of stack emission test results are maintained on-site and available for NMED inspection. Stack emission test results are used to determine total emissions from this facility.
TA-55-PF-4 Plutonium Facility	The HEPA filtration systems shall be equipped with a differential pressure gauge that measures the differential pressure (inches of water) across the HEPA filters while the exhaust fans are in operation.	The HEPA filtration systems are equipped with differential pressure gauges that measure the differential pressure across the HEPA filters while the exhaust fans are in operation.
	Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters.	Control efficiency is verified by daily HEPA filter pressure drop readings. Readings are recorded in the TA-55 Operations Center. Annual HEPA filter challenge tests of accessible filters are performed. Test results are summarized in Attachment B.

3. Boilers and Heaters

Permit Section	Monitoring Required	Monitoring Performed
2.3.4.1	Emission units TA-21-357-1, TA-21-357-2, and TA-21-357-3: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.	A volumetric flow meter is utilized to measure the total amount of natural gas being used on a monthly basis for emission units TA-21-357-1, TA-21-357-2 and TA-21-357-3. Natural gas usage is summarized in Attachment C.
2.3.4.2	Emission units TA-55-6-BHW-1 and TA-55-6-BHW-2: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.	Volumetric flow meters are utilized to measure the total amount of natural gas being used on a monthly basis for emission units TA-55-6-BHW-1 and TA-55-6-BHW-2. Natural gas usage is summarized in Attachment C.
2.3.4.3	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation.

4. Carpenter Shops, TA-3-38 & TA-15-563

Permit Section	Monitoring Required	Monitoring Performed
2.4.4.1	The permittee shall maintain logs of the hours the carpenter shops are in operation.	A log is maintained of the hours of operation at the TA-3-38 shop. During this reporting period, hour meters were placed on the cyclone separators, which will be used for monitoring hours of shop operation. The TA-15-563 carpenter shop is equipped with an hour meter on the cyclone separator. The hour meter is read and recorded monthly. Hours of operation are provided in Attachment D.

5. Chemical Usage

Permit Section	Monitoring Required	Monitoring Performed
2.5.4.1	Maintain records of chemical purchasing through facility-wide chemical tracking system, and use the data to calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	Records are maintained in LANL's facility wide chemical tracking system (ChemLog). The data is used to calculate emissions and is submitted in the Semi-Annual Emission Report.

6. Degreasers

Permit Section	Monitoring Required	Monitoring Performed
2.6.4.1	Record the amount of solvent added to the degreaser, and calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	Records are maintained of the amount of solvent added to the degreaser. This data is used to calculate emissions on a semi-annual basis. LANL's "Historical Solvent Usage Data" report for July 1 – Dec. 31, 2006 is provided in Attachment E.
2.6.4.2	Complete checklist for work practice standards.	LANL completes work practice checklists for the degreaser operation. The checklists are available on-site for NMED inspection.

7. Internal Combustion Sources

Permit Section	Monitoring Required	Monitoring Performed
2.7.4 [Stationary Standby Generators]	Track and record hours of operation for stationary standby generators on a semi-annual basis.	LANL tracks and records generator hours of operation on a semi-annual basis. Stationary generator hours of operation for 2006 are provided in Attachment F.
2.7.4 [TA-33-G-1]	Track hourly and 12-month rolling total kWh.	On May 18, 2006, LANL started the TA-33 diesel generator. Other than the start up test, the generator has not run. A form has been created and will be used for tracking generator start and stop times as well as hours of operation. These hourly readings will be used in tracking the 12-month rolling total of kWh.
	Record hours of operation and the time operation begins and ends each day.	
2.7.4.1	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation.

8. Data Disintegrator, TA-52-11

Permit Section	Monitoring Required	Monitoring Performed
2.8.4.1	The permittee shall maintain a log of the number of boxes of media that are destroyed and calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	LANL maintains a log of the number of boxes of media that are shredded and calculates the emissions on a semi-annual basis. The actual number of boxes shredded is included in Attachment G.
2.8.4.2	The permittee shall perform regular maintenance and repair on the cyclone and cloth tube filter(s) per manufacturer's recommendations.	LANL maintains a log documenting all maintenance and repairs performed on the cyclone and cloth tube filters. The Data Disintegrator and associated pollution control devices are maintained under a preventative maintenance contract.

9. Power Plant at Technical Area 3 (TA-3-22)

Permit Section	Monitoring Required	Monitoring Performed
2.9.4.1	Total fuel oil consumption shall be monitored so that combined fuel oil usage of Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 can be calculated on a rolling 365-day total.	Total fuel oil consumption is monitored on a daily basis. These daily readings are used to calculate a 365-day rolling total. Attachment H contains a summary of monthly fuel oil consumption. Records of daily fuel oil use are available on-site for NMED inspection.
2.9.4.2	Natural gas consumption shall be monitored so that combined natural gas usage of Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 can be calculated on a rolling 365-day total.	A volumetric flow meter is used to measure the total amount of natural gas used on a daily basis. These daily readings are used to calculate a 365-day rolling total. Attachment H contains a summary of monthly natural gas usage. Daily totals are available on-site for NMED inspection.
2.9.4.3	Natural gas consumption shall be monitored so that natural gas usage for Unit TA-3-22 CT-1 can be calculated on a rolling 365-day total.	The Combustion Turbine has not started operations. No monitoring performed.
2.9.4.4	A certification of total sulfur content of the No. 2 fuel oil used by Units TA-3-22-1, TA-3-22-2 and TA-3-22-3 shall be obtained from the supplier whenever No. 2 fuel oil is delivered to the facility.	No fuel oil was purchased or delivered during this reporting period.
2.9.4.5	If the certification as specified by Condition 2.9.4.4 is not available at delivery, the permittee shall analyze the No. 2 fuel oil to determine the total sulfur content. The analysis shall be	No fuel oil was purchased or delivered during this reporting period.

Permit Section	Monitoring Required	Monitoring Performed
	conducted using Department approved methods and standards for determining total sulfur content of No. 2 fuel oil.	
2.9.4.6	The operating load of Unit TA-3-22 CT-1 specified by Condition 2.9.3.7 shall be monitored and recorded hourly during normal operations of that unit. Periods of startup and shutdown shall not be included in the hourly monitoring but shall be recorded separately.	The Combustion Turbine has not started operations. No monitoring performed.
2.9.4.7	Compliance with NOx pound per hour emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the daily total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.1029 pounds NOx per thousand SCF of gas burned (applicable for worst-case conditions of negative 18 degrees Fahrenheit) and divided by the number of hours of operation of the unit during that day as recorded pursuant to Condition 2.9.3.8. Compliance with NOx annual emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the 365 day total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.1029 pounds NOx per thousand SCF of gas burned (applicable for annual average conditions of 47.9 degrees Fahrenheit).	The Combustion Turbine has not started operations. No monitoring performed.

Permit Section	Monitoring Required	Monitoring Performed
2.9.4.8	Compliance with CO pound per hour emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the daily total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.731 pounds CO per thousand SCF of gas burned (applicable for worst-case conditions of negative 18 degrees Fahrenheit), and divided by the number of hours of operation of the unit during that day as recorded pursuant to Condition 2.9.3.8). Compliance with CO annual emission limits for Unit TA-3-22 CT-1 shall be determined by multiplying the 365 day total natural gas firing rate for the unit (expressed in thousands of SCF), as recorded pursuant to Condition 2.9.5.3, by the manufacturer's guaranteed emission rate of 0.0613 pounds CO per thousand SCF of gas burned (applicable for annual average conditions of 47.9 degrees Fahrenheit).	The Combustion Turbine has not started operations. No monitoring performed.
2.9.4.9	At least once each calendar quarter the permittee shall use the method specified in Conditions 2.9.4.7 and 2.9.4.8 to determine compliance of Unit TA-3-22 CT-1 with the hourly and annual emission limits specified in this permit.	The Combustion Turbine has not started operations. No monitoring performed.
2.9.4.10	Visible emissions from stationary combustion equipment shall not equal or exceed an opacity of 20%. Use of pipeline quality natural gas fuel as defined in Conditions 2.9.3.1 and 2.9.3.4 constitutes compliance with	LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation.

Attachment A
Asphalt Plant Opacity Reports

Summary Table, Reports Attached

	Source	Date	Time	Opacity*
Jul	Top of Shaker	07/25/06	11:39 am	0
	Top of Baghouse Stack	07/25/06	11:47 am	0
	Conveyor Belt	07/26/06	8:46 am	0
Aug	Conveyor Belt	08/30/06	9:10 am	0
	Top of Shaker	08/30/06	9:20 am	0
Sep	Top of Shaker	09/11/06	11:00 am	0
Oct	Top of Shaker	10/04/06	8:44 am	0
	Top of Baghouse Stack	10/04/06	8:51 am	0
	Conveyor Belt	10/11/06	8:51 am	0
Nov	Top of Shaker	11/02/06	9:56 am	0
	Top of Baghouse Stack	11/02/06	10:02 am	0
	Conveyor Belt	11/02/06	10:08 am	0
Dec	Top of Shaker	12/12/06	9:15 am	0

* Average opacity for the Asphalt Plant is the sum of the highest consecutive 24 readings divided by 24 (6 minutes of readings). The method is in accordance with 20.2.61 NMAC and condition 2.1.4.1 of the Los Alamos National Laboratory (LANL) Operating Permit P100M1.

Permit Section	Monitoring Required	Monitoring Performed
	20.2.61 NMAC unless opacity exceeds 20%. At such time as No. 2 fuel oil as defined in Condition 2.9.3.1 is used, opacity shall be measured in accordance with the procedures at 40 CFR 60, Appendix A, Method 9. Opacity measurements shall continue on a quarterly basis per calendar year for each effected unit until such time as pipeline quality natural gas is used.	Delivery of pipeline quality natural gas is specified in the contract with the supplier (PNM). Opacity measurements performed at the TA-03 Power Plant are provided in Attachment I.
2.9.4.11	Initial compliance tests are required on Unit TA-3-22 CT-1 for NOx and CO. These tests shall be conducted within sixty (60) days after the unit achieves the maximum normal production. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source. The tests shall be conducted in accordance with EPA Reference Methods 1 through 4, Method 7E for NOx, and Method 10 for CO contained in CFR Title 40, Part 60, Appendix A, and with the requirements of Subpart A, General Provisions, 60.8(f). Alternative test method(s) may be used if the Department approves the change. The permittee shall submit a testing protocol to the Department at least thirty (30) days prior to the test date, and provide notification to the Department at least thirty (30) days prior to the test date.	The Combustion Turbine has not started operations. No monitoring performed.
2.9.4.12	The permittee shall comply with fuel sulfur monitoring requirements at 40 CFR 60.334(h) applicable to Unit TA-	The Combustion Turbine has not started operations. No Monitoring performed.

Permit Section	Monitoring Required	Monitoring Performed
	3-22 CT-1 by making the required demonstration which shows the fuel combusted in the turbine meets the definition of natural gas at 40 CFR 60.331(u).	

Deviations

Permit Section 4.2 requires that all instances of deviations from permit conditions, including emergencies, be clearly identified. Listed below are permit deviations this period:

1. Deviation from section 2.6 "Degreasers" of the LANL operating permit.

   LANL operates a small 10" x 12" x 10" deep batch cold cleaning machine (degreaser) inside a fully enclosed glove box. The degreaser uses trichloroethylene. When registered and certified in 1998, it was understood that a 0.75 freeboard ratio could not be maintained. A compliance approach based on 40 CFR 63.462 Batch Cold Cleaning Machine work practice standards and 40 CFR 63.464 Alternative Standards was proposed and submitted to NMED. LANL is in the process of contacting EPA to request the use of an alternative measure.

-------- Last Entry ----------

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: JULY 25, 2006
START TIME: 11:39 AM
STOP TIME: 11:45 AM
LOCATION: TA-60

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

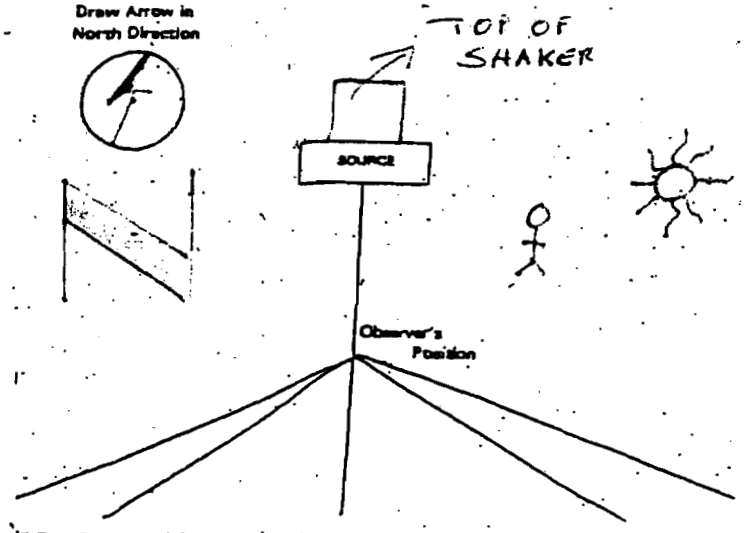
Type of Source: ASPHALT PLANT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: 40 Feet
Height Relative to Observer: 40 Feet
Distance from Observer: 30 Yards
Direction from Observer: —
Description of Plume (steam exit only): NA ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping
Emission Color: NO EMISSIONS
Plume Type: NO EMISSIONS ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12 TO 14" ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): PARTLY CLOUDY (PC)
Background Color: PC
Sky Conditions: CLEAR/PC
Wind Speed: 0-5 mph
Wind Direction (i.e. from North to South): WEST TO EAST (270°)
Ambient Temperature: (APPROX) 71 °F
Wet Temperature: °F
Relative Humidity: 76 %

COMMENTS: NO VISIBLE EMISSIONS OBSERVED

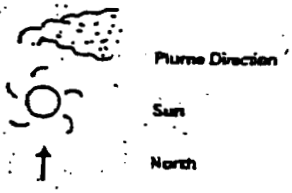
Average Opacity: 0.0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R. Costa Date: JULY 26 2006
Organization: KSL Certification Date: 2-1-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0659 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
LOCATION: TA-60
Type of Source: ASPHALT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF BAGHOUSE STACK
Height Above Ground Level: 25 Feet
Height Relative to Observer: 20 Feet
Distance from Observer: 35 Yards
Direction from Observer: WEST
Description of Plume (check all that apply): ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping — NO EMISSIONS
Emission Color: NO EMISSIONS
Plume Type: NO EMISSIONS ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12" TO 14" ABOVE THE STACK
Describe Background (i.e. blue sky, trees, etc.): PARTLY CLOUDY (PC)
Background Color: PC - CLEAR
Sky Conditions: CLEAR
Wind Speed: 0 TO 5 mph
Wind Direction (i.e. from North to South): WEST TO EAST (270°)
Ambient Temperature: 71 °F
Wet Temperature: °F
Relative Humidity: 76 %
COMMENTS: NO EMISSIONS OBSERVED

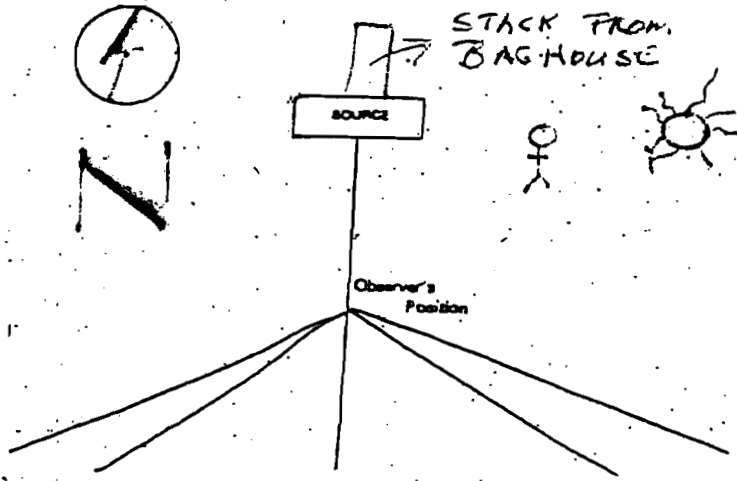
OBSERVATION DATE: July 25 2006
START TIME: 11:47 AM
STOP TIME: 11:53 PM

Min.	0	15	30	45	Min.	0	15	30	45
1	0	0	0		13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

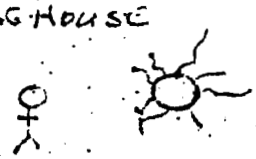
Average Opacity: 0.0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print) Name: RICHARD COSTA Title: ENGINEER
Signature: R Costa
Date: July 26 2006
Organization: KSL
Certification Date: 2-1-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 069 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

COPIED

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: July 26 2006
START TIME: 8:46AM
STOP TIME: 8:52AM
LOCATION: TA-60

Type of Source	Type of Control Equipment
ASPHALT PLANT	BAGHOUSE

Describe Emission Point (top of stack, etc.): CONVEYER BELT/HOPPER DROP POINT

Height Above Ground Level	Height Relative to Observer
5 Feet	5 Feet

Distance from Observer	Direction from Observer
35 Yards	WEST

Description of Plume (steam evident only): N/A ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☑ Coning NO EMISSIONS

Emission Color: NONE
Plume Type: NONE ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? 18" TO 20" PAST THE SOURCE

Describe Background (i.e. blue sky, trees, etc.): PARTLY CLOUDY (PC)

Background Color: PC/CLEAR
Sky Conditions: PC/CLEAR

Wind Speed: 2 to 4 mph
Wind Direction (i.e. from North to South): NE TO SW (29°)
Ambient Temperature: (AVG) 67 °F
Wet Temperature: °F
Relative Humidity: (AVG) 62 %

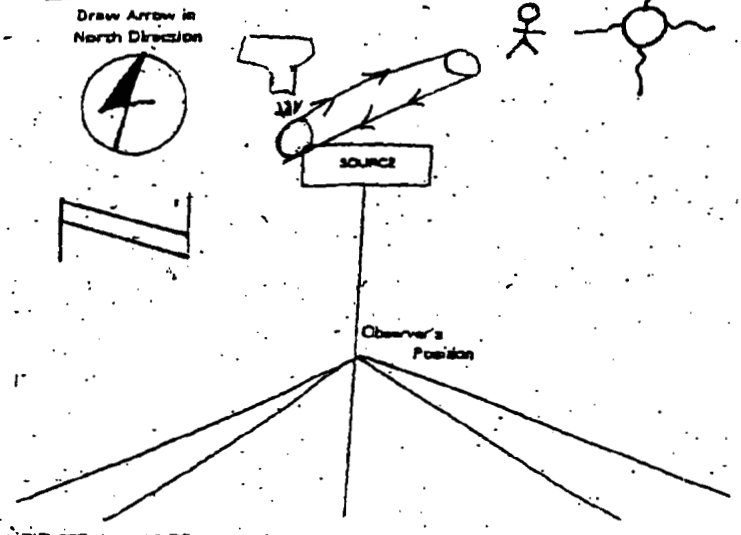
Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

COMMENTS: NO EMISSIONS OBSERVED.

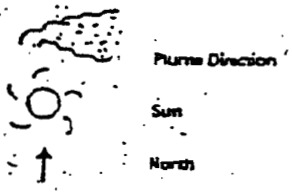
Average Opacity: 0.0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD C. COX Title: ENGINEER
Signature: R.C. COX Date: July 27 2006
Organization: KSL Certification Date: 2-1-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0019 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: Aug 30-2006
START TIME: 9:10 A.M.
STOP TIME: 9:16 A.M. AM.
LOCATION: TA 60

Type of Source: ASPHALT PLANT	Type of Control Equipment: BAG HOUSE
Describe Emission Point (top of stack, etc.): CONVEYER BELT	
Height Above Ground Level: 3.5 Feet	Height Relative to Observer: 3 Feet
Distance from Observer: 20 Yards	Direction from Observer: N
Describe Plume (steam exit only): N/A ☐ Looping ☐ Fanning ☐ Coning ☐ Lofting ☐ Trapping ☐ Fumigation	
Emission Color: NO EMISSION	Plume Type: NO EMISSION ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached	
At what point in the plume was opacity determined? 18" to 20"	
Describe Background (i.e. blue sky, trees, etc.): CLEAR SKY - BLUE	
Background Color: B. S.	Sky Conditions: CLEAR / B.S.
Wind Speed: 0.0 mph	Wind Direction (i.e. from North to South): NORTH
Ambient Temperature: APPX. 69 °F	Wet Temperature: °F Relative Humidity: %

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

AM

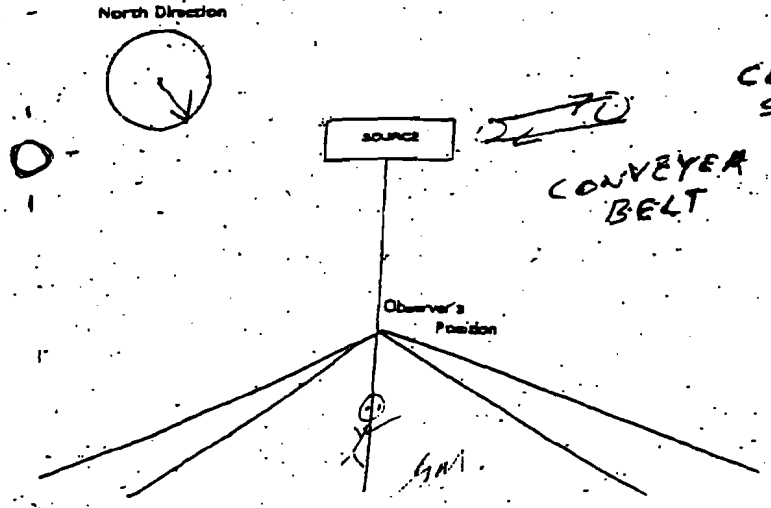
COMMENTS: NO VISIBLE EMISSIONS OBSERVED

Average Opacity: 0 1 0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print): Name: GLENN MARTINEZ Title: ENV-TEC
Signature: [signature] Date: Aug 30. 2006
Organization: ENV-EAQ Certification Date: 6-07-06

Draw Arrow in North Direction

IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.
Signature: [signature]
Title:
Date: 8-30-06

EID 069 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: AUG. 30 - 2006
START TIME: 9:12 A.M.
STOP TIME: 9:28 A.M.

LOCATION: TA-60

Type of Source: ASPHALT PLANT
Type of Control Equipment: BAG HOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: 40 Feet
Height Relative to Observer: 40 Feet
Distance from Observer: 20 Yards
Direction from Observer: SW
Description of Plume (stack exit only): NA ☐ Looping ☐ Fanning ☐ Coning ☐ Lofting ☐ Trapping ☐ Fumigation
Emission Color: NO EMISSIONS
Plume Type: NO EMISSIONS ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12 to 14' ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): CLEAR SKY - BLUE
Background Color: B. S.
Sky Conditions: B. S.
Wind Speed: 0.5 mph
Wind Direction (i.e. from North to South): NW
Ambient Temperature: 69 °F
Wet Temperature: °F
Relative Humidity: %

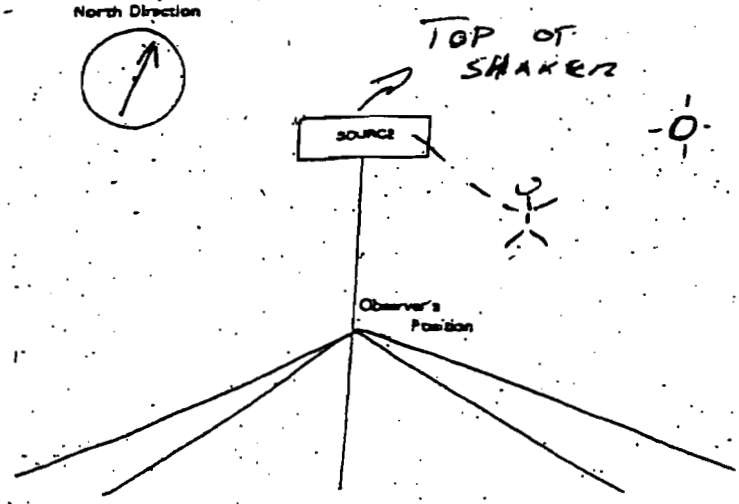
Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

COMMENTS: NO VISIBLE EMISSIONS OBSERVED

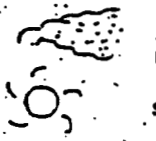
Average Opacity: 0.0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: OSCALD MARTINEZ Title: ENV. TEC
Signature: [signature]
Date: AUG. 30 - 2006
Organization: ENV-EAQ
Certification Date: 6-07-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.
Signature: [signature]
Title:
Date: 8-30-06

EID 009 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: SEPT-11-2006
START TIME: 11AM
STOP TIME: 11:06AM
LOCATION: TA-60

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

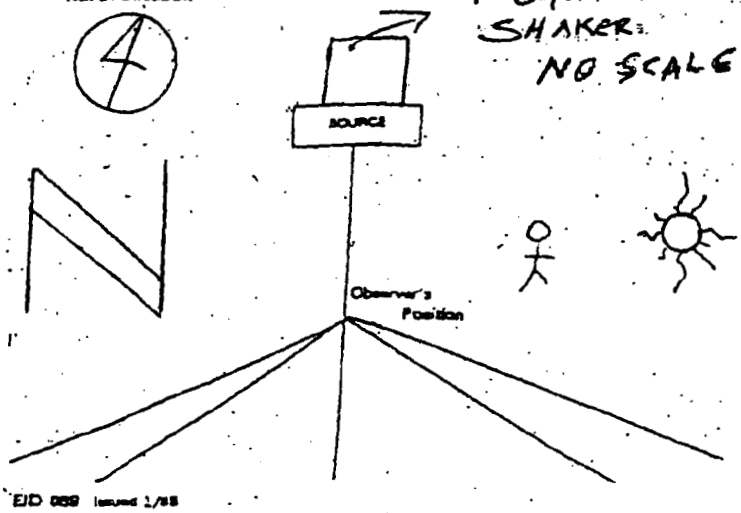
Type of Source: ASPHALT PROD.
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: APPROX 40 Feet
Height Relative to Observer: APPROX 35 Feet
Distance from Observer: 25 YDS Yards
Direction from Observer: WEST
Description of Plume (Steam exit only): NONE
☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping
Emission Color: NO EMISSION
Plume Type: NO EMISSION ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12" TO 14" ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): CLEAR BLUE
Background Color: CLEAR
Sky Conditions: MOSTLY CLEAR
Wind Speed: 2 TO 3 mph
Wind Direction (i.e. from North to South): FROM SSW - (215° TO 227°)
Ambient Temperature: 55 °F
Wet Temperature: NA °F
Relative Humidity: 69 %

COMMENTS: METHOD 22 ALSO CONFIRMED NO EMISSIONS FROM THE CONVEYER BELT TRANSFER POINT. NO EMISSIONS FROM BAGHOUSE.

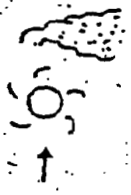
Average Opacity: 0.0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R Costa Date: 9-11-06
Organization: KSL Certification Date: 8-30-2006

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 069 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: 10-4-06
START TIME: 8:44AM
STOP TIME: 9:50AM
LOCATION: TA-60

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

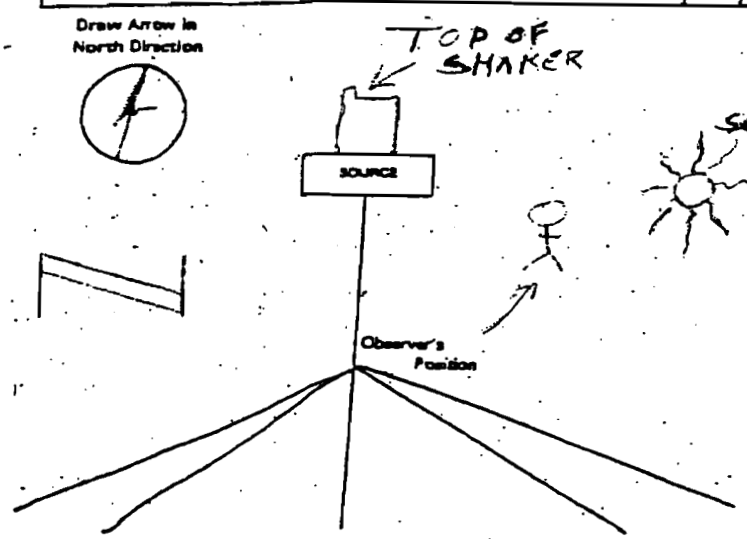
Type of Source: ASPHALT PLANT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: 40 Feet
Height Relative to Observer: 35 Feet
Distance from Observer: 30 Yards
Direction from Observer: WEST
Describe Plume (steam exit only): NO PLUME ☐ Looping ☐ Fanning ☐ Coning ☐ Lofting ☐ Trapping ☐ Fumigation
Emission Color: NO EMISSION
Plume Type: N/A ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12 TO 14" ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): CLEAR
Background Color: BLUE SKY
Sky Conditions: CLEAR
Wind Speed: 1 TO 5 mph
Wind Direction (i.e. from North to South): 191°
Ambient Temperature: Approx. 62 °F
Wet Temperature: N/A °F
Relative Humidity: 29 %

COMMENTS: DURING THIS COMPLIANCE TEST - NO EMISSIONS WERE OBSERVED. ASPHALT HAULROAD PAVED MID SEPT. 2006.

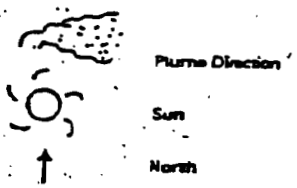
Average Opacity: 0-0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R. Costa
Date: 10-5-06
Organization: KSL
Certification Date: 4-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 069 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: 10-4-06
START TIME: 8:51 AM
STOP TIME: 8:57 AM
LOCATION: TA-60

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

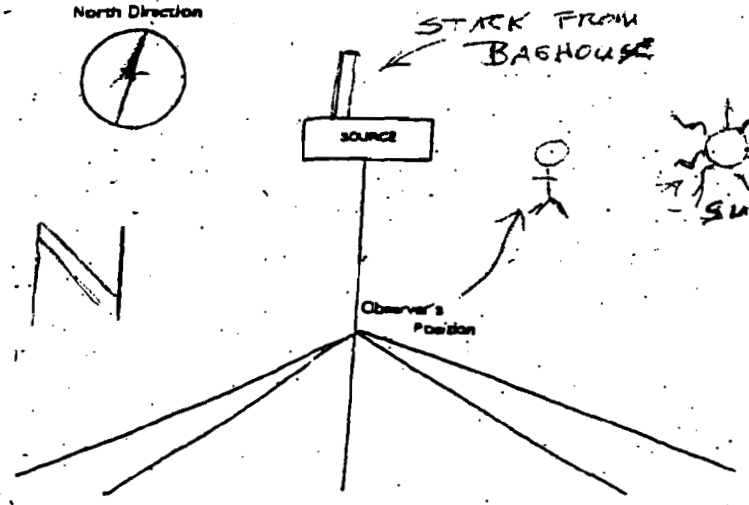
Type of Source: BAGHOUSE STACK
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF BAGHOUSE STACK
Height Above Ground Level: 25 Feet
Height Relative to Observer: 20 Feet
Distance from Observer: 35 Yards
Direction from Observer: WEST
Description of Plume (steam, water): NO PLUME
☐ Looping ☐ Fanning ☐ Coning ☐ Lofting ☐ Trapping ☐ Fumigation
Emission Color: NO EMISSION
Plume Type: N.A. ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12" TO 14" ABOVE STACK
Describe Background (i.e. blue sky, trees, etc.): CLEAR
Background Color: BLUE SKY
Sky Conditions: CLEAR
Wind Speed: 1 TO 5 mph
Wind Direction (i.e. from North to South): 196°
Ambient Temperature: Approx 62 °F
Wet Temperature: N.A. °F
Relative Humidity: 29 %

COMMENTS: DURING THIS OBSERVATION NO EMISSIONS WERE OBSERVED ASPHALT HAUL ROAD PAVED MID SEPT 2006

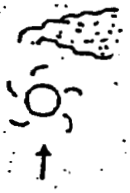
Average Opacity: -0-
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R Costa Date: 10-5-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0028 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

8:57 AM R. Costa

SOURCE: ASPHALT PLANT
OBSERVATION DATE: 10-11-06
START TIME: 8:51 AM
STOP TIME: ~~8:56~~ AM
LOCATION: TA-60

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

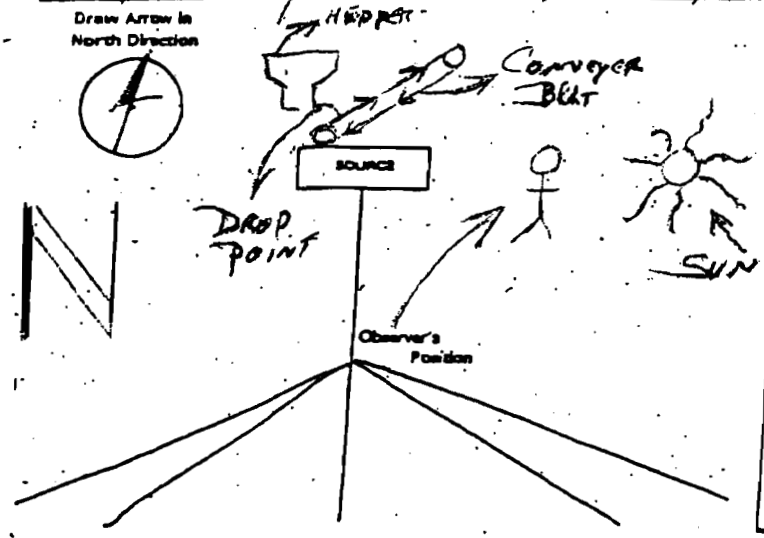
Type of Source: ASPHALT PLANT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): CONVEYOR BELT - DROP POINT
Height Above Ground Level: 5 Feet
Height Relative to Observer: 5 Feet
Distance from Observer: 25 Yards
Direction from Observer: NORTH
Description of Plume (check all that apply): ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Looping ☐ Trapping — NO EMISSIONS
Emission Color: NO EMISSIONS
Plume Type: ☐ Continuous ☐ Fugitive ☐ Intermittent — NONE
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12" TO 24" ABOVE DROP POINT
Describe Background (i.e. blue sky, trees, etc.): CLEAR
Background Color: BLUE
Sky Conditions: CLOAR
Wind Speed: 3 TO 8 mph
Wind Direction (i.e. from North to South): EAST TO WEST
Ambient Temperature: APPROX 58 °F
Wet Temperature: UNK °F
Relative Humidity: APPROX 25 %

COMMENTS: OPACITY READING COMPLETED TO VERIFY THAT ENGINEERING CONTROLS ARE EFFECTIVE. NO EMISSIONS NOTED. FACILITY IS COMPLIANT W/ PERMIT CONDITIONS.

Average Opacity: - 0-0 -
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R. COSTA Date: 10-11-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0819 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: 11-2-06
START TIME: 9:56AM
STOP TIME: 10:01AM
LOCATION: TA-60

Type of Source: ASPHALT PLANT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: 40 Feet
Height Relative to Observer: 35 Feet
Distance from Observer: 35 Yards
Direction from Observer: WEST
Description of Plume (check all that apply): ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping — NO EMISSIONS
Emission Color: NONE
Plume Type: NO EMISSIONS ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12 TO 14" ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): BLUE SKY
Background Color: CLEAR
Sky Conditions: CLEAR
Wind Speed: 2 TO 4 mph
Wind Direction (i.e. from North to South): 11° TO 23°
Ambient Temperature: 56 (13.5C) °F
Wet Temperature: NONE °F
Relative Humidity: 59 %

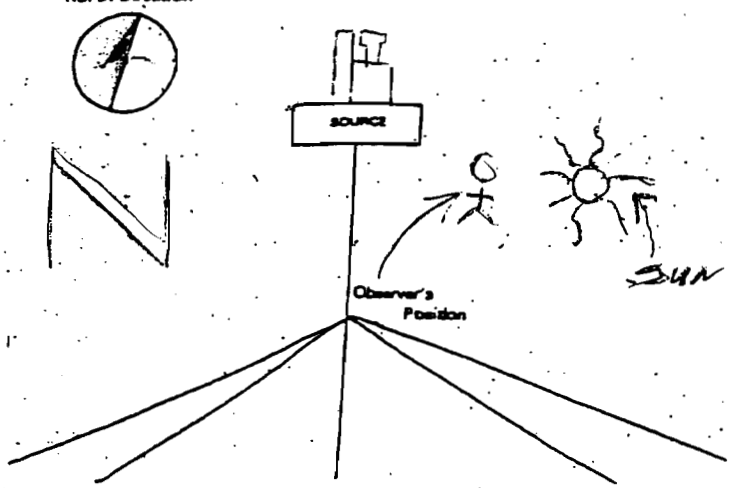
Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

COMMENTS: PLANT OPERATING NORMAL. NO EMISSION FROM SOURCE & ROADS SINCE PT 11-1-06 @ 6:30PM

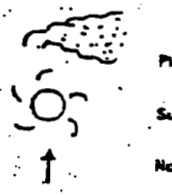
Average Opacity: -0-
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD CRUZ Title: ENGINEER
Signature: R. Cruz Date: 11-2-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0659 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
OBSERVATION DATE: 11-2-06
START TIME: 10:02AM
STOP TIME: 10:07AM
LOCATION: TA-60

Type of Source: ASPHALT PLT. BAGHOUSE STACK
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): BAGHOUSE STACK
Height Above Ground Level: 25 Feet
Height Relative to Observer: 20 Feet
Distance from Observer: 35 Yards
Direction from Observer: WEST
Description of Plume (check all that apply): ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Trapping — NO EMISSIONS
Emission Color: NONE
Plume Type: NONE ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 12" TO 14" ABOVE STACK
Describe Background (i.e. blue sky, trees, etc.): BLUE SKY
Background Color: CLEAR
Sky Conditions: CLEAR
Wind Speed: 2 TO 4 mph
Wind Direction (i.e. from North to South): 11° TO 23°
Ambient Temperature: 56/135c °F
Wet Temperature: NONE °F
Relative Humidity: 59 %

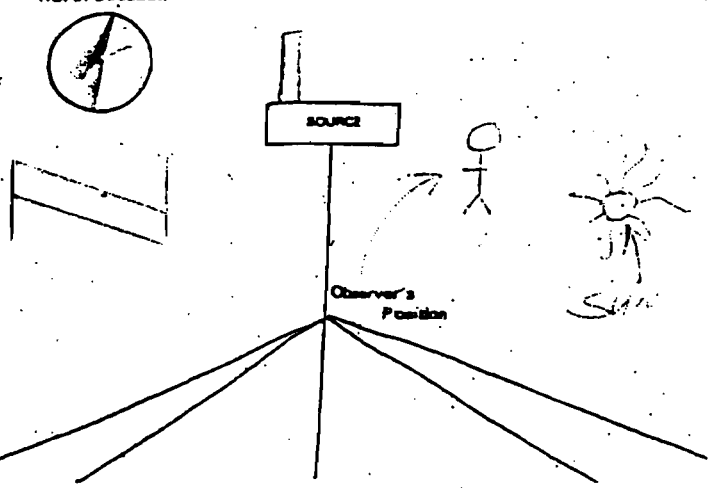
Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

COMMENTS: PLANT OPERATING NORMAL NO EMISSIONS FROM SOURCE ROADS SWEPT 11-1-06 @ 6:30PM

Average Opacity: 0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R. Costa Date: 11-2-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0659 Issued 1/88

ATTACHMENT A
300 Area Glovebox Exhaust FF-854 Data Sheet

Date: 7-19-06 (8.4.1) LAS Calibration Expiration Date: 04-25-07 (8.4.3) Diluter Calibration Expiration Date: 10-18-06 (8.4.4) Dilution Ratio: 2109 (8.4.2)

Step Number	Item	FF-854 H-5-1450
9.1.12.2	Background concentration (part./cc)	3.531×10^{-3} part. concentration
9.1.12.3	Upstream concentration (part./cc)	2.512×10^{6} part. concentration
9.1.12.4	Challenge aerosol concentration between 2.00×10^{6} and 2.71×10^{6} part./cc	PaO Initials
9.1.12.5	1st stage downstream concentration (part./cc)	2.835×10^{2} part. concentration
9.1.12.6	2nd/3rd stage downstream concentration (part./cc)	3.531×10^{-3} part. concentration
9.1.12.7	1st stage Penetration ≤ 5.0×10^{-4} (efficiency ≥ 99.95%)	1.128×10^{-4}
9.1.12.8	2nd/3rd stage Penetration ≤ 2.5×10^{-7} (efficiency ≥ 99.999975%)	2.812×10^{-9}
9.1.13.2 9.1.13.3	Ensure all test port ball valves are closed; (FF-858-FH1, FF-859-FH1, TP-858-2,TP-855-2, TP-854-2, TP-859-2, TP-854-3, TP-855-3, TP-855-1, TP-854-1)	PaO Initials / PT Independent Verification

Valve	Required Position	Initials	Independent Verification
HV-854-J	Closed and Locked	PaO	MMT
HV-854-G	Closed	PaO	MMT
HV-854-H	Closed	PaO	MMT
HV-854-D	Closed	PaO	MMT
HV-854-C	Closed	PaO	MMT
HV-854-B	Closed	PaO	MMT
HV-854-A	Closed	PaO	MMT
HV-854-AA	Closed	PaO	MMT

Comments:

Surveillance Personnel Signature 7-19-06 Date

OC On-duty Supervisor Signature 7/20/06 Date

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
LOCATION: TA-60
Type of Source: ASPHALT PLANT
Type of Control Equipment: BAGHOUSE
Describe Emission Point (top of stack, etc.): TOP OF SHAKER
Height Above Ground Level: 40 Feet
Height Relative to Observer: 35 Feet
Distance from Observer: 30 Yards
Direction from Observer: WEST
Description of Plume (steam exit only): NO EMISSIONS ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping
Emission Color: NO EMISSIONS
Plume Type: NO EMISSIONS ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? — N.A. ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 10" TO 12" ABOVE SOURCE
Describe Background (i.e. blue sky, trees, etc.): CLEAR BLUE SKY
Background Color: CLEAR
Sky Conditions: CLEAR
Wind Speed: 1 TO 3 mph
Wind Direction (i.e. from North to South): FROM 320° TO 10°
Ambient Temperature: 38 approx °F
Wet Temperature: °F
Relative Humidity: 10 TO 15 approx %

OBSERVATION DATE: 12-12-06
START TIME: 9:15AM
STOP TIME: 9:21AM

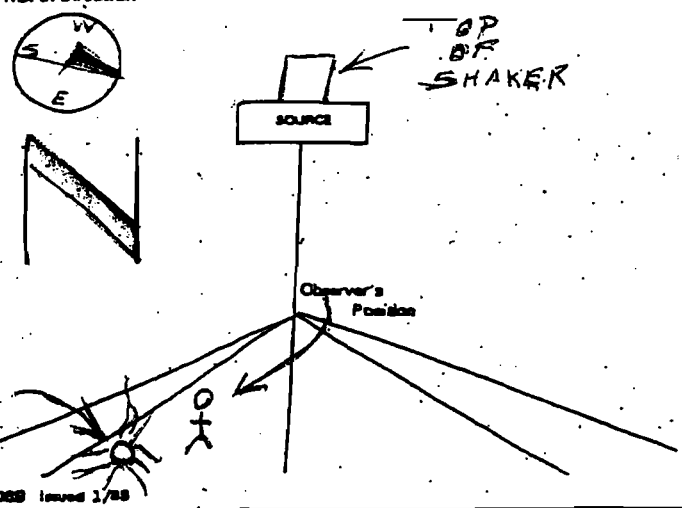
Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

Average Opacity: -0-
Range of Opacity Readings: Min.: 0 Max.: 0

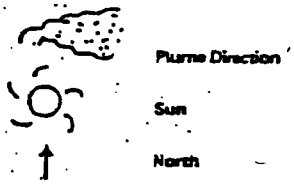
COMMENTS: THERE WERE NO VISIBLE EMISSIONS. BASED ON THE LIMITED RUN TIME & EAQ ASSESSMENT, METHOD 22 WAS USED TO DETERMINE "NO EMISSIONS" WERE SEEN FROM THE BAGHOUSE AND CONVEYED BELT. ROAD CONDITIONS MEET PERMIT REQUIREMENTS

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R Costa Date: 12-13-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 088 Issued 1/88

VISIBLE EMISSION OBSERVATION FORM

Environmental Improvement Division
RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: ASPHALT PLANT
LOCATION: TA-60
Type of Source: ASPHALT PLANT
Type of Control Equipment: BAG HOUSE
Describe Emission Point (top of stack, etc.): CONVEYER BELT DROP POINT
Height Above Ground Level: 5 Feet
Height Relative to Observer: 5 Feet
Distance from Observer: 5 Yards
Direction from Observer: WNW
Description of Plume (steam, ash): NO EMISSION ☐ Looping ☐ Fanning ☐ Lofting ☐ Coning ☐ Trapping ☐ Fumigation
Emission Color: NONE
Plume Type: NONE ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? 10 TO 12" ABOVE DROP POINT
Describe Background (i.e. blue sky, trees, etc.): BLUE SKY
Background Color: CLEAR
Sky Conditions: CLEAR
Wind Speed: 2 TO 4 mph
Wind Direction (i.e. from North to South): 110 TO 230 DEGREE
Ambient Temperature: 56 °F
Wet Temperature: NONE °F
Relative Humidity: 59 %

OBSERVATION DATE: 11-2-06
START TIME: 10:00AM
STOP TIME: 10:13 AM

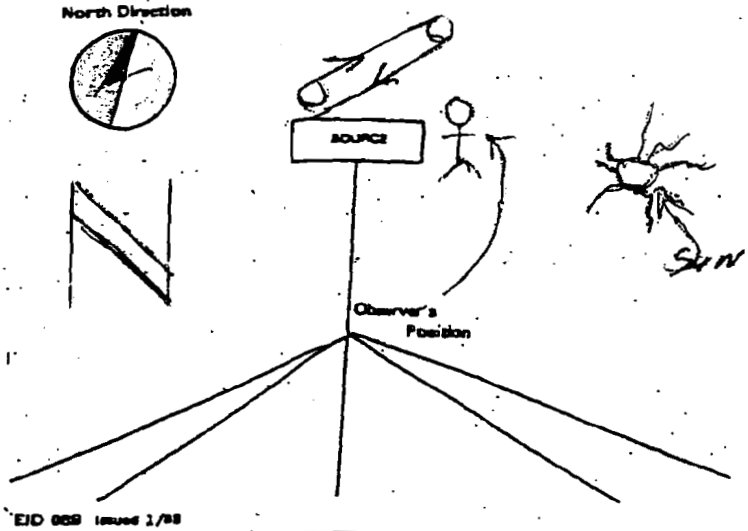
Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

COMMENTS: PLANT OPERATING NORMAL. NO EMISSIONS FROM THIS SOURCE ROADS SWEPT 11-1-06 @ 6:30PM

Average Opacity: — 0 —
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: RICHARD COSTA Title: ENGINEER
Signature: R. COSTA Date: 11-2-06
Organization: KSL Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: _____

Title: _____

Date: _____

EID 0659 Issued 1/98

Attachment B
Beryllium HEPA Filter Tests Results

Summary Table, Reports Attached

Unit	Date	Pass/Fail
TA-55 (H5-1450) (FF-854)	7/19/2006	Pass
TA-55 (H5-1460) (FF-855)	7/19/2006	Pass

300 AREA GLOVEBOX EXHAUST IN PLACE HEPA FILTER TESTING

FOR INFORMATION ONLY

ATTACHMENT C
300 Area Glovebox Exhaust FF-855 Data Sheet

Date: 7-19-06 (8.4.1) LAS Calibration Expiration Date: 01-25-07 (8.4.3) Diluter Calibration Expiration Date: 10-18-06 (8.4.4) Dilution Ratio: 2109 (8.4.2)

Step Number	Item	FF-855 H-5-1460
9.3.12.2	Background concentration (part./cc)	1.059×10^{-2} part. concentration
9.3.12.3	Upstream concentration (part./cc)	2.267×10^{6} 7-20-06 part. concentration
9.3.12.4	Challenge aerosol concentration between 2.00×10^{6} and 2.71×10^{6} part./cc	PO Initials
9.3.12.5	1st stage downstream concentration (part./cc)	1.017×10^{2} part. concentration
9.3.12.6	2nd/3rd stage downstream concentration (part./cc)	3.884×10^{-2} part. concentration
9.3.12.7	1st stage Penetration ≤ 5.0×10^{-4} (efficiency ≥ 99.95%)	4.484×10^{-5}
9.3.12.8	2nd/3rd stage Penetration ≤ 2.5×10^{-7} (efficiency ≥ 99.999975%)	1.246×10^{-8}
9.3.13.2 9.3.13.3	Ensure all test port ball valves are closed; (FF-858-FH1, FF-859-FH1, TP-858-2, TP-855-2, TP-854-2, TP-859-2, TP-854-3, TP-855-3, TP-855-1, TP-854-1)	Initials / Independent Verification: PT

Valve	Required Position	Initials	Independent Verification
HV-855-J	Closed and Locked		PO
HV-855-G	Closed		PO
HV-855-H	Closed		PO
HV-855-D	Closed		PO
HV-855-C	Closed		PO
HV-855-B	Closed		PO
HV-855-A	Closed		PO
HV-854-AA	Closed		PO

Comments:

Surveillance Personnel Signature: [signature] Date: 7-19-06

FOR INFORMATION ONLY

QC On-duty Supervisor Signature: [signature] Date: 7/20/06

FOR INFORMATION ONLY

Attachment C
Boilers and Heaters Natural Gas Usage

2006 Small Boilers Data Entry / Gas Use

	Month	Metered Boilers: TA-55 Boiler Gas Use (MSCF) BHW-1B (B-602)	Metered Boilers: TA-55 Boiler Gas Use (MSCF) BHW-2B (B-603)	Metered Boilers: TA-50-2 (MSCF) BS-1	Total Gas Use (MSCF)	Total Gas Use (MMSCF)	Non-Metered Gas Use (MMSCF)	12-Month Rolling Total for all Small Boilers (MMSCF)
Data Entry	January	2751	135		69,973	69.97	66.84	513.43
	February	591	0		59,582	59.58	58.74	504.46
	March	1630	0		58,189	58.19	56.31	496.97
	April	1301	57		35,789	35.79	34.18	484.29
	May	578	1010		21,932	21.93	20.10	475.96
	June	242	910	1492	16,395	16.40	14.99	476.66
	July	504	511		12,634	12.63	11.37	474.00
	August	2196	6		13,180	13.18	10.73	473.05
	September	297	89		23,222	23.22	22.59	480.04
	October	1762	749		41,690	41.69	38.93	481.16
	November	3	2004		58,111	58.11	55.85	484.30
	December	1	2223	1503	79,916	79.92	77.44	490.61
	TOTAL	11856	7694	2995	490,613	490.61	468.07	Permit Limit = 870

2006 Non Metered Boiler Pool Capacity:	**308.7**	MMBTU/hr
Estimated Gas-Use per MMBtu rating Jan-June:	0.81	MMscf/MMBtu/hr
Estimated Gas-Use per MMBtu rating July-Dec:	0.70	MMscf/MMBtu/hr
Estimated Gas-Use per MMBtu - Annual	1.52	MMscf/MMBtu/hr

Definitions:

MMSCF= Million Standard Cubic Feet
MSCF = Thousand Standard Cubic Feet

Metered/Non-metered: Metered boilers are those units that have unit specific volumetric flow meters for the boiler(s) only.

	Gas Use Non-Metered (MMSCF)								
AIRS Stack #	015	016	017	018	019	020	021	024	Insignificant Units
Location:	TA-48-1	TA-48-1	TA-48-1	TA-53-365	TA-53-365	TA-59-1	TA-59-1	TA-16-1484	Lab Wide
ID:	BS-1	BS-2	BS-6	BHW-1	BHW-2	BHW-1	BHW-2	Plant 5	Various
Design Rate (MMBTU/hr)	**5.336**	**5.335**	**7.140**	**7.115**	**7.115**	**5.335**	**5.335**	**12.700**	**253**
Calculated Gas Use-Jan-June	4.342	4.341	5.809	5.788	5.788	4.341	4.341	10.333	206.079
Calculated Gas Use-July-Dec	3.749	3.749	5.017	4.999	4.999	3.749	3.749	8.924	177.971
Calculated Gas Use-Annual	8.091	8.090	10.826	10.787	10.787	8.090	8.090	19.256	384.050

Attachment D
Carpenter Shop Hours of Operation

2006 TA-3 & TA-15 Carpenter Shops

TA-3	Data Entry
	Hours of Operation[1]
Month	TA-3
January	15.5
February	19
March	22.5
April	26.5
May	14.25
June	11
6 mo. Total	108.75

TA-3	Data Entry
	Hours of Operation[1]
Month	TA-3
July	12.25
August	13.5
September	22.75
October	14.1
November	8
December	7
6 mo. Total:	77.60

TA-15	Data Entry
	Hours of Operation[1]
Month	TA-15
January	10.2
February	19.8
March	29.2
April	13.3
May	13.3
June	16.0
6 mo. Total	101.8

TA-15	Data Entry
	Hours of Operation[1]
Month	TA-15
July	29.8
August	21.2
September	7.1
October	15.0
November	14.0
December	10.5
6 mo. Total:	97.6

Reference
1. Based on information provided monthly by the shop foreman from each shop.

Saws, drills, shaping and sanding equipment shall each not operate in excess of 4368 hours per year.

Attachment E
Degreaser Solvent Usage

Historical Solvent Usage Data

The usage information for UT Bath degreaser from Jul-01-2006 through Dec-31-2006 is displayed below.

General Degreaser Information

Degreaser	Type	TA	Solvent
UT Bath	Cold Batch	55	Trichloroethylene

Date Measured	Initial Solvent Level (inches)	Volume Added (liters)	Level Added (inches)	Volume Removed (liters)	Level Removed (inches)
Jul-21-2006	7.5	0.00	0.00	0.0	0.0
Aug-22-2006	6.5	2.94	1.50	0.0	0.0
Sep-18-2006	8.0	0.00	0.00	0.0	0.0
Oct-25-2006	7.5	0.00	0.00	0.0	0.0
Nov-02-2006	7.5	14.35	7.30	14.74	7.5
Nov-06-2006	7.3	0.98	0.50	0.0	0.0
Dec-22-2006	7.0	1.96	1.00	0.0	0.0

Attachment F
Internal Combustion Generator Hours of Operation

2006 GENERATOR HOURS

								First 6 Month Readings 2006			Second 6 Month Readings 2006		
TA	*Bldg*	*Manufacturer*	*MODEL*	*KW*	*Fuel Type*	*Reading Date 2nd half 05'*	*Reading 2nd half 05'*	*6 Month Reading Date*	*Reading*	*Hours Run*	*12 Month Reading Date*	*Reading*	*Hours Run*
3	40	Onan Sons	1500DVE15R31374B	150	Diesel	Nov-05	246.0	Apr-06	246.0	0.0	Dec-06	246	0
3	223	Onan Sons		45	Nat. Gas	Nov-05	469.1	Apr-06	473.2	4.1	Dec-06	478	4.8
3	440	Cummins	500FDR5051	150	Diesel	Dec-05	98.0	Apr-06	114.5	16.5	Dec-06	121.8	7.3
3	440	Cummins	DFGA-5005210	500	Diesel	Dec-05	42.9	Apr-06	60.7	17.8	Dec-06	69.5	8.8
3	1076	Cummins	DGBB-5601289	35	Diesel	Dec-05	44.5	May-06	80.6	36.1	Dec-06	101.2	20.6
3	1404	Cummins	DFLC-5554001	1250	Diesel	Dec-05	79.0	May-06	112.9	33.9	Dec-06	287.9	175
3	1498	Caterpillar		600	Diesel	Nov-05	281.0	Apr-06	286.0	5.0	Dec-06	303	17
3	2322	Onan Sons		80	Diesel	Nov-05	202.8	Apr-06	284.4	81.6	Dec-06	329.1	44.7
16	980	Cummins	KTA50-G2	1100	Diesel	Dec-05	10.4	May-06	63.6	53.2	Dec-06	226.3	162.7
16	1374	Onan Sons	60ENA	60	Nat. Gas	Nov-05	978.0	Apr-06	1018.6	40.6	Dec-06	1039.4	20.8
18	31	Onan Sons	275DFML29807N	275	Diesel	Dec-05	160.0	May-06	172.2	12.2	Dec-06	173.4	1.2
21	155	Onan Sons	750.ODFV-4XR	750	Diesel	Nov-05	837.8	Apr-06	849.1	11.3	Dec-06	851.6	2.5
21	357	Caterpillar		125	Diesel	Nov-05	456.5	Apr-06	467.9	11.4	Dec-06	497.5	29.6
60	Yard	Onan Sons	H1750DSG15	175	Diesel	Nov-05	2934.0	Apr-06	2962.7	28.7	Dec-06	3054.4	91.7
60	Yard	Onan Sons		350	Diesel	Nov-05	1878.1	Apr-06	2506.4	628.3	Dec-06	2619.4	113
60	Yard	Cummins	150DGFA	150	Diesel	Nov-05	1083.5	Apr-06	1145.0	61.5	Dec-06	1147	2
33	20	Kohler	30ROZ	30	Diesel	Nov-05	915.2	May-06	916.7	1.5	Dec-06	919	2.3
33	151	Caterpillar	XQ225	225	Diesel	Nov-05	2944.0	May-06	2944.0	0.0	Dec-06	2944	0
33	208	Kohler	1600ROZD	1600	Diesel	Nov-05	4.9	May-06	4.9	0.0	Dec-06	9.3	4.4
33	Point	Onan Sons	80DG10A	80	Diesel	Nov-05	7643.1	May-06	7643.1	0.0	Dec-06	7643.1	0
35	2	Onan Sons	100DGDB	100	Diesel	Dec-05	115.3	May-06	115.3	0.0	Dec-06	115.3	0
43	1	Cummins	4BT3.9-GC	50	Diesel	Nov-05	356.7	Apr-06	362.1	5.4	Dec-06	369.4	7.3
43	1	Onan Sons		150	Diesel	Nov-05	506.6	Apr-06	530.2	23.6	Dec-06	562.6	32.4
46	335	Onan Sons	300DEFCB	300	Diesel	Nov-05	784.6	May-06	824.6	40.0	Dec-06	873.8	49.2
48	45	Onan Sons	DFCB-5740130	300	Diesel	Nov-05	343.7	May-06	2.9	2.9	Dec-06	16	13.1
50	37	Cummins	680FDR5059FF	500	Diesel	Nov-05	475.4	Apr-06	480.4	5.0	Dec-06	485.1	4.7
50	184	Onan Sons	75ENAD	60	Nat. Gas	Nov-05	92.1	Apr-06	112.1	20.0	Dec-06	153.6	41.5
50	188	Onan Sons	L940563879	1250	Diesel	Nov-05	142.7	Apr-06	148.1	5.4	Dec-06	149	0.9
53	1	Onan Sons		60	Nat. Gas	Nov-05	1067.1	Apr-06	1110.9	43.8	Dec-06	1165.4	54.5
53	2	Kato Eng.	Kaman	50	Diesel	Nov-05	194.3	May-06	194.3	0.0	Dec-06	194.3	0
53	M	Cummins		60	Diesel	Nov-05	4440.0	May-06	4440.1	0.1	Dec-06	4440.1	0
53	M	Onan Sons		12.5	Nat. Gas	Nov-05	581.5	May-06	581.6	0.1	Dec-06	581.6	0
54	412	Olympian	95M-07874-F	500	Diesel	Nov-05	269.2	Apr-06	282.5	13.3	Dec-06	292	9.5
55	5			100	Nat. Gas	Dec-05	62.4	Apr-06	65.7	3.3	Dec-06	71.3	5.6
55	8	Detroit		600	Diesel	Dec-05	782.9	May-06	792.2	9.3	Dec-06	805.3	13.1
55	364	Onan Sons	1250DFLC-4987	1250	Diesel	Dec-05	11.9	May-06	23.2	11.3	Dec-06	52.6	29.4
55	28	Onan Sons		40	Diesel	Dec-05	45.1	Apr-06	47.2	2.1	Dec-06	47.3	0.1
55	47	Onan Sons	1465	200	Diesel	Nov-05	492.3	Apr-06	500.1	7.8	Dec-06	515.6	15.5
55	142	Cummins	DFEB-4963414	400	Diesel	Dec-05	75.0	Apr-06	79.4	4.4	Dec-06	88.8	9.4
59	1	Allis Chalmers	2884-0703	90	Diesel	Nov-05	736.8	Apr-06	742.0	5.2	Dec-06	749.3	7.3
63	Yard	Murphy		20	Diesel	Nov-05	569.9	May-06	715.9	146.0	Dec-06	715.9	0
64	1	Onan Sons		250	Diesel	Nov-05	134.5	May-06	140.4	5.9	Dec-06	148	7.6
64	39	Onan Sons		20	Diesel	Dec-05	189.9	May-06	189.9	0.0	Dec-06	189.9	0
69	33	Cummins	DFLC-5568730	1250	Diesel	Nov-05	35.0	Apr-06	40.6	5.6	Dec-06	53.2	12.6
	44 Generators in use								**TOTAL**	1404.2		**TOTAL**	1022.1

N/R = Not Read

First half average hours per unit	**31.9**	**Second half average hours per unit**	**23.2**

Annual Average of hours per unit	**27.6**

Attachment G
Data Disintegrator Box Throughput

2006 TA-52 Data Disintegrator

Month	Data Entry: Boxes Shredded	12-Month Rolling Total	Month	Data Entry: Boxes Shredded	12-Month Rolling Total
January	1436	7897	July	890	9360
February	1040	8169	August	1468	10243
March	766	7870	September	599	10842
April	705	7731	October	328	11170
May	1023	7986	November	15	10865
June	1379	9228	December	560	10209
6 mo. Total	6,349		6 mo. Total:	3,860	

Annual Boxes (2006):	10,209

Attachment H
Power Plant Natural Gas and Fuel Oil Usage

TA-3 Power Plant Fuel Use Totals 2006 (Data Entry)

DATA ENTRY

Month	TA-3-22 Steam Plant Boiler # 1 (Edgemoor Iron Works, 210 MMBTU/hr)		TA-3-22 Steam Plant Boiler # 2 (Edgemoor Iron Works, 210 MMBTU/hr)		TA-3-22 Steam Plant Boiler # 3 (Union Iron Works, 210 MMBTU/hr)		Monthly Totals	
	Natural Gas (MCF)	Fuel Oil (gallons)	Natural Gas (MCF)	Fuel Oil (gallons)	Natural Gas (MCF)	Fuel Oil (gallons)	Natural Gas (MMCF)	Fuel Oil (gallons)
January	5,171	0	7,866	0	55,572	0	68.609	0
February	4,840	713	5,675	0	47,920	0	58.435	713
March	1,934	603	10,104	319	45,818	0	57.856	922
April	0	0	8,249	378	41,663	0	49.912	378
May	0	0	24,512	651	9,412	0	33.924	651
June	0	0	28,120	658	1,346	0	29.466	658
July	0	0	26,542	1,163	342	0	26.884	1163
August	17,919	0	6,403	0	2,705	0	27.027	0
September	24,522	0	4,077	0	4,891	0	33.490	0
October	32,044	438	2,139	0	47,848	0	82.031	438
November	25,681	0	29,612	13,368	9,492	2,634	64.785	16002
December	35,930	0	12,293	0	28,005	219	76.228	219
Annual Totals:	148,041	1,754	165,592	16,537	295,014	2,853	608.647	21144
Jan. - June	11,945	1,316	84,526	2,006	201,731	0	298.202	3322
July - Dec.	136,096	438	81,066	14,531	93,283	2,853	310.445	17822

Month	12-Mo. Rolling Total Natural Gas (MMscf)	12-Mo. Rolling Total Fuel Oil (gallons)
January	561.9	4403
February	563.4	4994
March	561.7	5881
April	563.9	5215
May	556.1	4970
June	554.9	4972
July	552.1	6135
August	551.3	5558
September	556.9	5558
October	596.7	5010
November	608.0	21012
December	608.6	21144

Permit Limits:	2000 MMscf	500,000 gallons

	Totals by Fuel Type	
	Natural Gas (MMscf)	Fuel Oil (Gallons)
Annual Totals:	608.65	21144.00
Jan. - June	298.20	3322.00
July - Dec.	310.45	17822.00

Attachment I
Power Plant Opacity Reports

Summary Table, Reports Attached

Source	Date	Time	*Average Opacity
TA-3-22 Power Plant	07-07-06	10:56 am	0%
	07-11-06	9:25 am	3.125%
	07-18-06	8:00 am	0%
	07-25-06	8:50 am	0%
	10-10-06	9:45 am	3.38%
	11-07-06	9:08 am	0%
	11-07-06	9:48 am	0.5%
	11-14-06	9:08 am	0.5%
	11-14-06	12:20 am	14.875%
	11-14-06	1:37 pm	0%
	11-21-06	9:25am	0%
	12-14-06	8:43 am	2.375%

* Average opacity for the Power Plant is the sum of the highest consecutive 40 readings divided by 40 (10 minutes of readings). The method is in accordance with 20.2.61 NMAC.

RECORD OF VISUAL DETERMINATION OF OPACITY

Fuel oil Boiler #2

LOCATION: TA3 SMZZ Power Plant

OBSERVATION DATE: 7-7-06 | START TIME: 10:56 | STOP TIME: 11:19

Type of Source: Fuel oil

Type of Control Equipment: N/A

Describe Emission Point (top of stack, etc.): Top of NW stack

Height Above Ground Level: 150 Feet

Height Relative to Observer: 200 Feet

Distance from Observer: 150 ~~Feet~~ Yards

Direction from Observer: NW

Description of Plume (stack exit only): ☑ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color: Black

Plume Type: ☐ Continuous ☐ Fugitive ☑ Intermittent

Water Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? 1 Foot Above Stack

Describe Background (i.e. blue sky, trees, etc.): Grey, white Cloudy skies

Background Color: Gray, white Blue

Sky Conditions: Cloudy

Wind Speed: 3 mph

Wind Direction (i.e. from North to South): From South to North

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: %

Min.	Sec. 0	15	30	45	Min.	Sec. 0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	
12	0	0	0	0	24				

Average Opacity: 0.0%

Range of Opacity Reading: Min.: 0.0% Max.: 0.0%

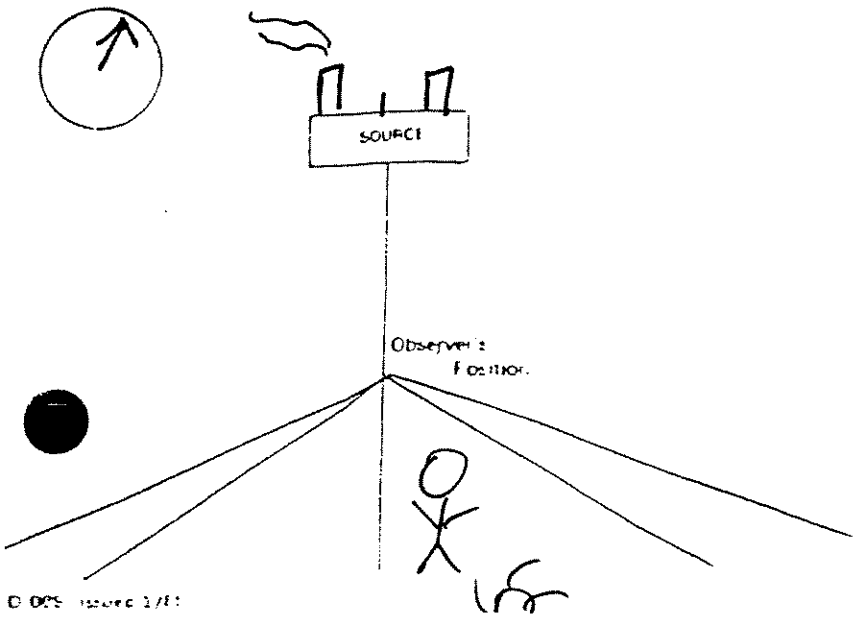
COMMENTS: Boiler IN Auto At 11:19am stopped Taking Readings Just observing stopped observing At 12:50pm

OBSERVER (please print) Name: BRIAN ORTIZ Title: Operator II

Signature: Brian Ortiz Date: 7-7-06

Organization: UPPS Certification Date: 3/1/06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Benny R. Mayes

Title: UPPS Sup

Date: 7/7/06

RECORD OF VISUAL DETERMINATION OF OPACITY

Source: ER #2 FUEL OIL
Location: TA 3 SM 22 POWER PLANT
Type of Source: DIESEL FUEL | Type of Control Equipment: NA
Describe Emission Point (top of stack, etc.): TOP OF STACK - WEST
Height Above Ground Level: 150 Feet | Height Relative to Observer: 170 Feet
Distance from Observer: 50 Yards | Direction from Observer: SE
Description of Plume (stack exit only): ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation
Emission Color: BLACK | Plume Type: ☐ Continuous ☐ Fugitive ☑ Intermittent
Water Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? TOP OF STACK
Describe Background (i.e. blue sky, trees, etc.): BLUE SKIES
Background Color: BLUE | Sky Condition: CLEAR
Wind Speed: 0-5-8 mph | Wind Direction (i.e. from North to South): E TO W
Ambient Temperature: °F | Wet Temperature: °F | Relative Humidity: %

COMMENTS:

Observation Date: 7-11-06 | Start Time: 0925 | Stop Time: 1008

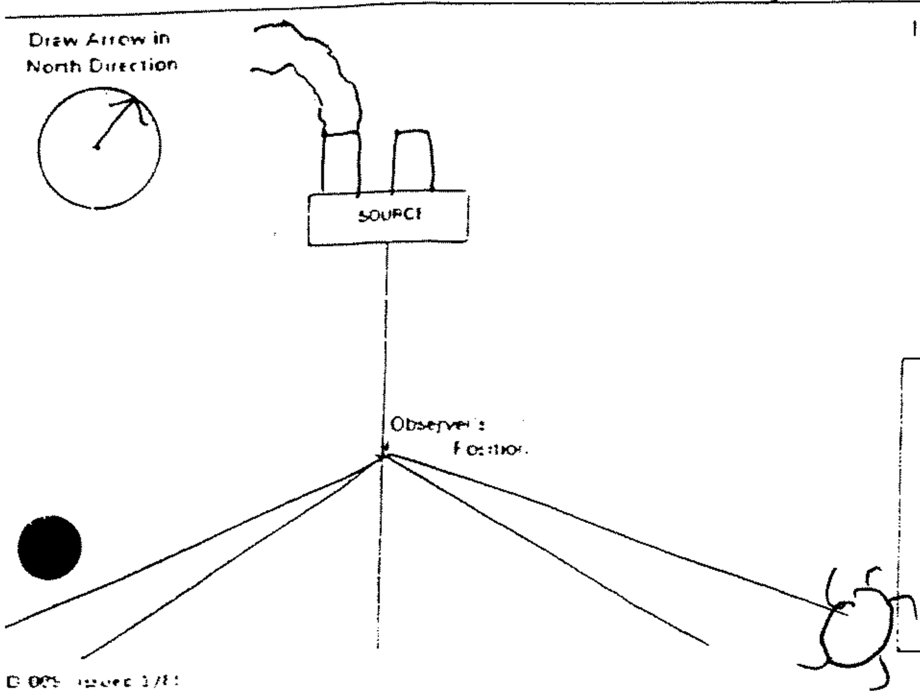
Min. \ Sec	0	15	30	45	Min. \ Sec	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	5	10	15	0	0	0	0
4	10	25	25	25	16	0	0	0	0
5	25	5	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 3.125 | Range of Opacity Readings: Min.: 5 Max.: 25

OBSERVER (please print) Name: LEONARD PACHECO Title: OPERATER
Signature: [signature] | Date: 7-11-06
Organization: KSL - UPPS | Certification Date: 3-1-06

Draw Arrow in North Direction

IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: Benny R. Marquez
Title: UPPS Sup
Date: 7/11/06

RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE: [redacted] BOILER #2	OBSERVATION DATE: 7-11-06
LOCATION: TA 3 SM 22 POWER PLANT	START TIME: 0925
Type of Source: FUEL OIL	STOP TIME: 1008
Type of Control Equipment: NA	
Describe Emission Point (top of stack, etc.): TOP OF STACK - WEST	
Height Above Ground Level: 150 Feet	Height Relative to Observer: 170 Feet
Distance from Observer: 50 Yards	Direction from Observer: S.E.
Description of Plume (stack exit only): ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping	
Emission Color: BLACK	Plume Type: ☐ Continuous ☐ Fugitive ☐ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached	
At what point in the plume was opacity determined? TOP OF STACK	
Describe Background (i.e. blue sky, trees, etc.): BLUE SKY	
Background Color: BLUE	Sky Conditions: CLEAR
Wind Speed: 5-8 mph	Wind Direction (i.e. from North to South): E TO WEST
[redacted] Temperature: °F	Wet Temperature: °F
	Relative Humidity: %

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	5	20	0	0	0	0
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0	0	0	23				
12	0	0	0	0	24				

Average Opacity: 3.125

Range of Opacity Reading: Min.: 5 Max.: 25

COMMENTS: BURNER ON AT 9:56

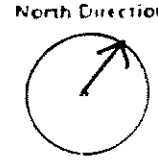
OBSERVER (please print)

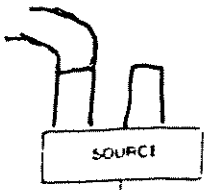
Name: LEONARD PACHECO Title: OPERATOR

Signature: [signature] Date: 7-11-06

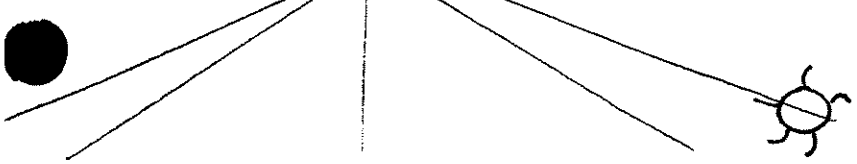
Organization: KSL-UPPS Certification Date: 3-1-06

Draw Arrow in North Direction





Observer's Position



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Bonny R. Marquez

Title: UPPS Sup

Date: 7/11/06

DPS Issued 3/81

RECORD OF VISUAL DETERMINATION OF OPACITY

#2 Boiler	OBSERVATION DATE: 7/18/06
LOCATION: TA3 SM22	START TIME: 8:00
Type of Source: Fuel Oil	STOP TIME: 8:22
Type of Control Equipment: N/A	
Describe Emission Point (top of stack, etc.): Top of Stack	
Height Above Ground Level: 150 Feet	Height Relative to Observer: 175 Feet
Distance from Observer: 200 Ft Feet	Direction from Observer: NW
Description of Plume (stack exit only): ☒ Clear ☐ Looping ☐ Fanning ☐ Coning ☐ Trapping ☐ Fumigation	
Emission Color: Black	Plume Type: ☐ Continuous ☐ Fugitive ☒ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached	
At what point in the plume was opacity determined? One foot Above NW Stack	
Describe Background (i.e. blue sky, trees, etc.): Blue & GRAY	
Background Color: Blue & GRAY	Sky Conditions: Partly Cloudy
Wind Speed: 5 mph	Wind Direction (i.e. from North to South): SE to NW
Ambient Temperature: °F	Wet Temperature: °F
	Relative Humidity: %

COMMENTS: Stopped Reading At 8:22 Boiler in Auto Just observing Came off Fuel oil @ 10:00AM NO SMOKE ON Shut Down

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23				
12	0	0	0	0	24				

Average Opacity: 0.0%

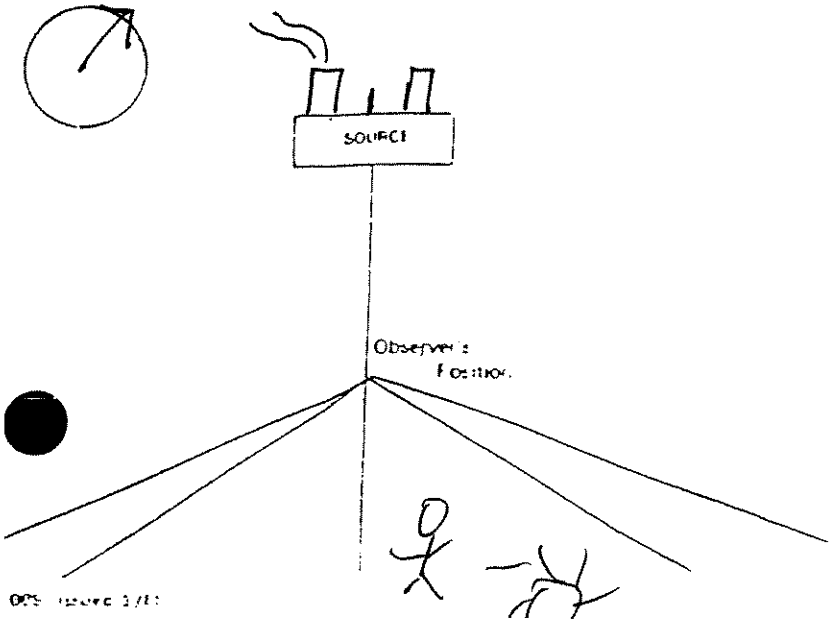
Range of Opacity Readings: Min.: 0.0% Max.: 0.0%

OBSERVER (please print) Name: BRIAN ORTIZ Title: Operator

Signature: Brian Ortiz Date: 7/18/06

Organization: UPPS Certification Date: 3/1/06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Benny R. Marquez

Title: UPPS Sup

Date: 7/18/06

OPS Issued 3/01

RECORD OF VISUAL DETERMINATION OF OPACITY

COMPANY NAME / BUILDING	FUEL OIL BOILER #2
LOCATION	TA3 SM 22 BOILER #2
Type of Source	FUEL OIL
Type of Control Equipment	NA
Describe Emission Point (top of stack, etc.)	TOP OF STACK
Height Above Ground Level	150 Feet
Height Relative to Observer	170 Feet
Distance from Observer	50 Yards
Direction from Observer	S.E.
Description of Plume (stack exit only)	NONE ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping
Emission Color	BLACK
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent NA
Water Droplets Present?	☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined?	TOP OF STACK
Describe Background (i.e. blue sky, trees, etc.)	BLUE SKY WHITE CLOUDS
Background Color	BLUE + WHITE
Sky Conditions	SCATTERED
Wind Speed	mph
Wind Direction (i.e. from North to South)	N TO WEST
Ambient Temperature	°F
Wet Temperature	°F
Relative Humidity	%

OBSERVATION DATE: 7-25-06 | START TIME: 08:50 | STOP TIME: 09:25

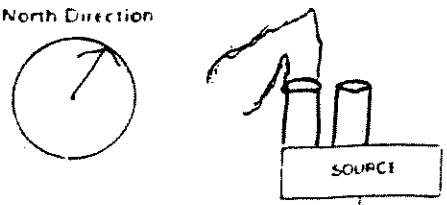
Min.	Sec 0	15	30	45	Min.	Sec 0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 0 | Range of Opacity Readings: Min.: 0 Max.: 0

COMMENTS:

OBSERVER (please print)
Name: LEONARD PALMER Title: OPERATOR
Signature: [signature] Date: 7-25-06
Organization: KSL UPPS Certification Date: 3-1-06

Draw Arrow in North Direction



Observer's Position

IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

1 North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Bonny R. Mayes

Title: UPPS Sup

Date: 7/25/06

RECORD OF VISUAL DETERMINATION OF OPACITY

FUEL OIL

OBSERVATION DATE: 7-25-06 | START TIME: 09:50 | STOP TIME: 09:25

LOCATION: TA 3 SM 22 — BOILER #2

Type of Source: FUEL OIL

Type of Control Equipment: NA

Describe Emission Point (top of stack, etc.): TOP OF STACK

Height Above Ground Level: 150 Feet

Height Relative to Observer: 170 Feet

Distance from Observer: 50 Yards

Direction from Observer: S-E

Description of Plume (stack exit only): NONE ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color: BLACK

Plume Type: NA ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? TOP OF STACK

Describe Background (i.e. blue sky, trees, etc.): BLUE SKY WHITE CLOUDS

Background Color: BLUE + WHITE

Sky Conditions: SCATTERED

Wind Speed: 0-2 mph

Wind Direction (i.e. from North to South): N-S

Ambient Temperature °F | Wet Temperature °F | Relative Humidity %

Min.	Sec. 0	15	30	45	Min.	Sec. 0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7	0	0	0	0	19				
8	0	0	0	0	20				
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0	0	0	23				
12	0	0	0	0	24				

Average Opacity: 0

Range of Opacity Readings: Min.: 0 Max.: 0

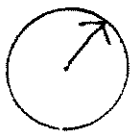
COMMENTS: BURNER ON + STABLE STOPPED READING AT 0925 OBSERVED TILL 11:15 WHEN NO LONGER ON FUEL OIL

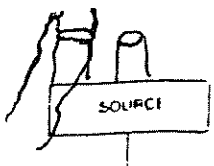
OBSERVER (please print) Name: LEONARD PACHECO Title: OPERATOR

Signature: [signature] Date: 7-25-06

Organization: V.S.L. UPPS Certification Date: 5-1-06

Draw Arrow in North Direction



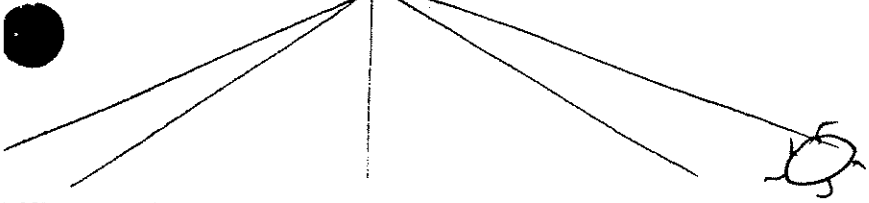


Plume Direction

Sun

1 North

IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: Benny R. Marquez

Title: UPPS Sup

Date: 7/25/06

OPS Issued 2/81

RECORD OF VISUAL DETERMINATION OF OPACITY

Pg #1

SOURCE: Fuel oil # 1 boiler

OBSERVATION DATE: 10-10-06

START TIME: 945 AM

STOP TIME: 1050 AM

LOCATION: TA 3 Sm 22 Power Plant

Type of Source: Fuel Oil

Type of Control Equipment: N/A

Describe Emission Point (top of stack, etc.): Top of Stack

Height Above Ground Level: 150 Feet

Height Relative to Observer: 170 Feet

Distance from Observer: 250' Yards

Direction from Observer: SE

Description of Plume (stack exit only): ☑ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color: Black

Plume Type: ☐ Continuous ☐ Fugitive ☒ Intermittent

Water Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? Top of Stack

Describe Background (i.e. blue sky, trees, etc.): Blue Sky

Background Color: Blue

Sky Conditions: Clear

Wind Speed: 8 mph

Wind Direction (i.e. from North to South): S SE

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: %

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	5	0	0	0
2	5	0	0	0	14	0	5	0	0
3	0	0	5	0	15	0	0	0	0
4	0	0	5	0	16	0	0	0	0
5	0	0	0	0	17	10	0	0	0
6	0	0	0	0	18	0	0	0	0
7	5	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	5	0
10	0	0	0	0	22	0	0	0	0
11	5	0	0	5	23	0	0	0	0
12	0	0	0	0	24	0	0	80	25

Average Opacity: 3.38

Range of Opacity Reading: Min.: 0 Max.: 80

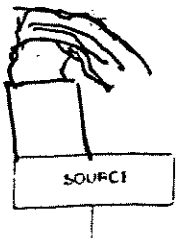
COMMENTS:

OBSERVER (please print) Name: Patrick GRIEGO Title: Opperator 1

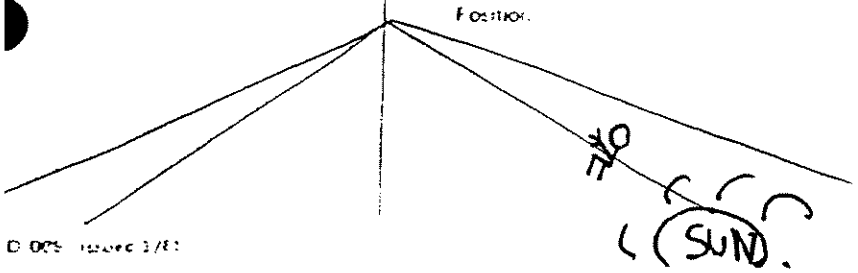
Signature: Patrick Griego Date: 10-10-06

Organization: PSL Certification Date: 8-29-06

Draw Arrow in North Direction



Observer's Position



IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions, observations.

Signature: Armand Standley

Title: Acting Supt. Co-Gen

Date: 10-10-06

ED 005 Issued 3/83

RECORD OF VISUAL DETERMINATION OF OPACITY

Pg #2

IRCE	Fuel oil #3 Boiler
CATION	TA 3 Sec 22 Power Plant
e of Source	Fuel oil
Type of Control Equipment	N/A
cribe Emission Point (top of stack, etc.)	Top of Stack
ght Above Ground Level	150 Feet
Height Relative to Observer	170 Feet
tance from Observer	250 Yards
Direction from Observer	SE
cription of Plume (stack exit only)	☑ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation
ission Color	Black
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent
ter Droplets Present?	☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
What point in the plume was opacity determined?	Top of Stack
scribe Background (i.e. blue sky, trees, etc.)	Blue sky
ckground Color	Blue
Sky Conditions	Clear
Speed	8 mph
Wind Direction (i.e. from North to South)	SSE
mbient Temperature	°f
Wet Temperature	°f
Relative Humidity	%

OMMENTS:

OBSERVATION DATE	START TIME	STOP TIME
10.10.06	945 AM	1050 AM

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	15	5	5	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 3.38

Range of Opacity Readings: Min.: 0 Max.: 80

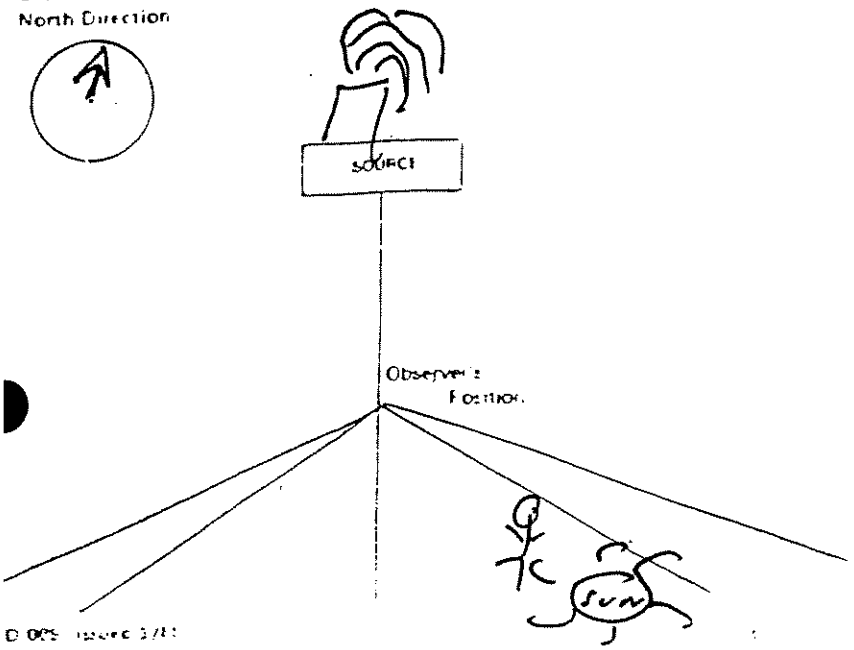
OBSERVER (please print)

Name: Patrick Cardoza Title: Operator #1

Signature: Patrick Cardoza Date: 10.10.06

Organization: KSL Certification Date: 8.27.06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Clarence Standley

Title: Asst. Supt. Co-Gen

Date: 10-10-06

D 009 (Issued 3/1)

RECORD OF VISUAL DETERMINATION OF OPACITY

Pg #3

SOURCE	Fuel oil #3 Boiler
LOCATION	TA 3 Small Power Plant
Type of Source	Fuel oil
Type of Control Equipment	NA
Describe Emission Point (top of stack, etc.)	Top of Stack
Height Above Ground Level	150 Feet
Height Relative to Observer	170 Feet
Distance from Observer	250 Yards
Direction from Observer	SE
Description of Plume (stack exit only)	☑ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation
Emission Color	Black
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent
Water Droplets Present?	☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined?	Top of Stack
Describe Background (i.e. blue sky, trees, etc.)	Gray Cloudy Sky
Background Color	Gray
Sky Conditions	Cloudy
Wind Speed	8 mph
Wind Direction (i.e. from North to South)	SSE
Ambient Temperature	°f
Wet Temperature	°f
Relative Humidity	%
COMMENTS:	

OBSERVATION DATE	START TIME	STOP TIME
10.10.06	945 AM	10:50 AM

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18				
7	0	0	0	0	19				
8	0	0	0	0	20				
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0	0	0	23				
12	0	0	0	0	24				

Average Opacity: 3.38

Range of Opacity Readings: Min.: 0 Max.: 80

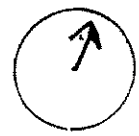
OBSERVER (please print)

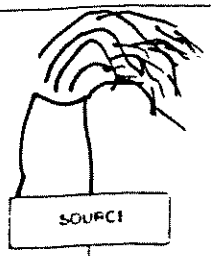
Name: Patricia Griego Title: Operator #1

Signature: Patricia Griego Date: 10.10.06

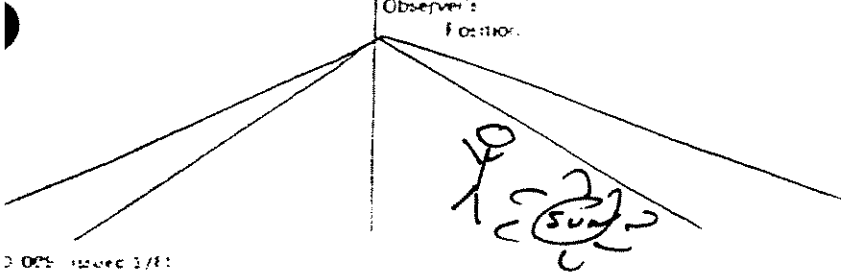
Organization: KSL Certification Date: 8-29-06

Draw Arrow in North Direction





IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: Armond Stanley

Title: Act Supt Co-Gen

Date: 10-10-06

EPA Form 9/81

RECORD OF VISUAL DETERMINATION OF OPACITY ~~Page 1 of 2~~ 4

[redacted] OIL #3 ROLLER	OBSERVATION DATE: 11-7-06
LOCATION: T4 3 SM-22	START TIME: 0908
Type of Source: FUEL OIL	STOP TIME: 0932
Type of Control Equipment: NA	
Describe Emission Point (top of stack, etc.): TOP OF STACK (EAST)	
Height Above Ground Level: 150 Feet	Height Relative to Observer: 170 Feet
Distance from Observer: 80 Yards	Direction from Observer: S.E.
Description of Plume (stack exit only): ☒ Rolling ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation	
Emission Color: BLACK	Plume Type: ☐ Continuous ☐ Fugitive ☒ Intermittent
Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached	
At what point in the plume was opacity determined? TOP OF STACK	
Describe Background (i.e. blue sky, trees, etc.): WHITE + BLUE SKY	
Background Color: WHITE BLUE	Sky Conditions: BROKEN
Wind Speed: 0-7 mph	Wind Direction (i.e. from North to South): N TO SW
[redacted] Temperature °F	Wet Temperature °F / Relative Humidity %

COMMENTS:

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 0

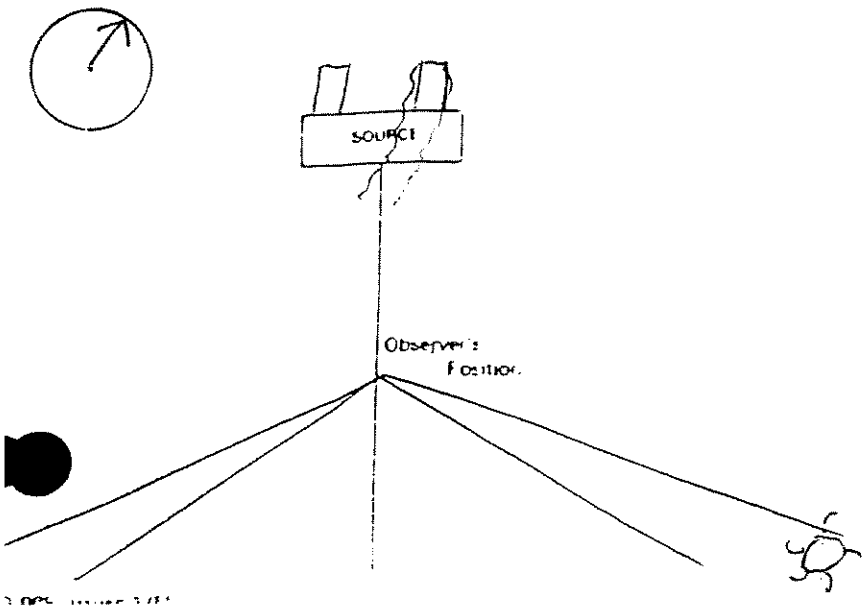
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: LEONARD PACHECO Title: OPERATOR

Signature: [signature] Date: 11-7-06

Organization: KSL Certification Date: 8-29-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: Acting Compliance Supt.

Date: 11-7-06

RECORD OF VISUAL DETERMINATION OF OPACITY ~~PG2~~ KP 2

Source	UEL OIL #3 BOILER
Location	TA 3-SM-22
Type of Source	FUEL OIL
Type of Control Equipment	NA
Describe Emission Point (top of stack, etc.)	TOP OF STACK EAST STACK
Height Above Ground Level	150 Feet
Height Relative to Observer	170 Feet
Distance from Observer	80 Yards
Direction from Observer	SE
Description of Plume (stack exit only)	☑ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation
Emission Color	BLACK
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent
Water Droplets Present?	☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined?	TOP OF STACK
Describe Background (i.e. blue sky, trees, etc.)	WHITE + BLUE SKY
Background Color	WHITE + BLUE
Sky Condition	BROKEN
Wind Speed	0-7 mph
Wind Direction (i.e. from North to South)	N TO SW
Temperature	°F
Wet Temperature	°F
Relative Humidity	%

OBSERVATION DATE: 11-7-06 START TIME: 0948 STOP TIME: 1005

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	20	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17				
6	0	0	0	0	18				
7	0	0	0	0	19				
8	0	0	0	0	20				
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0	0	0	23				
12	0	0	0	0	24				

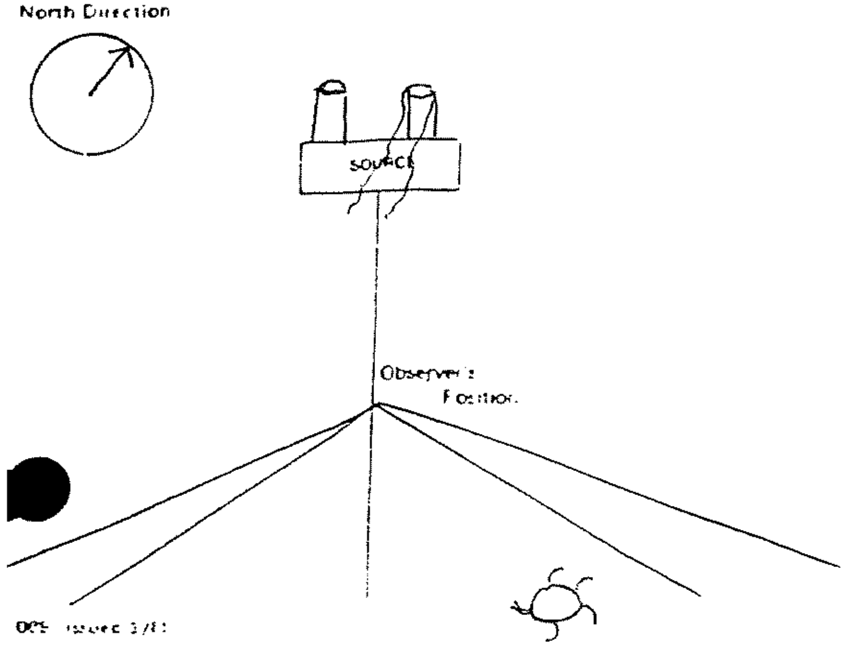
Average Opacity: ~~2~~ .5 (XP 11-7-06)

Range of Opacity Reading: Min.: 0 Max.: 20

COMMENTS:
BOILER #3 TRIPPED, OPERATERS HAD TO RELIGHT BURNERS, SO BEGAN READING AGAIN AT 0948

OBSERVER (please print)
Name: LEONARD PACHECO Title: OPERATOR
Signature: [signature] Date: 11-7-06
Organization: KSL Certification Date: 8-29-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]
Title: ACTING SUPT CO-GEN
Date: 11-7-06

1 of 3

RECORD OF VISUAL DETERMINATION OF OPACITY

Source Name: Fuel oil #2 Boiler

Location: TA3 SM 22 PowerPlant

Type of Source: Fuel oil

Type of Control Equipment: N/A

Describe Emission Point (top of stack, etc.): Top of West Stack

Height Above Ground Level: 150 Feet

Height Relative to Observer: 170 Feet

Distance from Observer: 250'

Direction from Observer: South

Description of Plume (stack exit only): ☒ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color: Black

Plume Type: ☐ Continuous ☐ Fugitive ☒ Intermittent

Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? One foot Above West Stack

Describe Background (i.e. blue sky, trees, etc.): Cloudy Skies

Background Color: Grey

Sky Conditions: Cloudy

Wind Speed: + Gusting mph

Wind Direction (i.e. from North to South): From West to East

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: 60 %

COMMENTS: Wind is Gusting From 20 to 30 mph As per WeatherBug.com. Snow Flurries.

Observation Date: 11/14/06

Start Time: 9:08

Stop Time:

Min.	0	15	30	45	Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	20	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: .5 ~~2.0~~ 1-25-07

Range of Opacity Readings: Min.: 0.0 Max.: 20.0

OBSERVER (please print) Name: BRIAN ORTIZ Title: Lead Maint Mgr

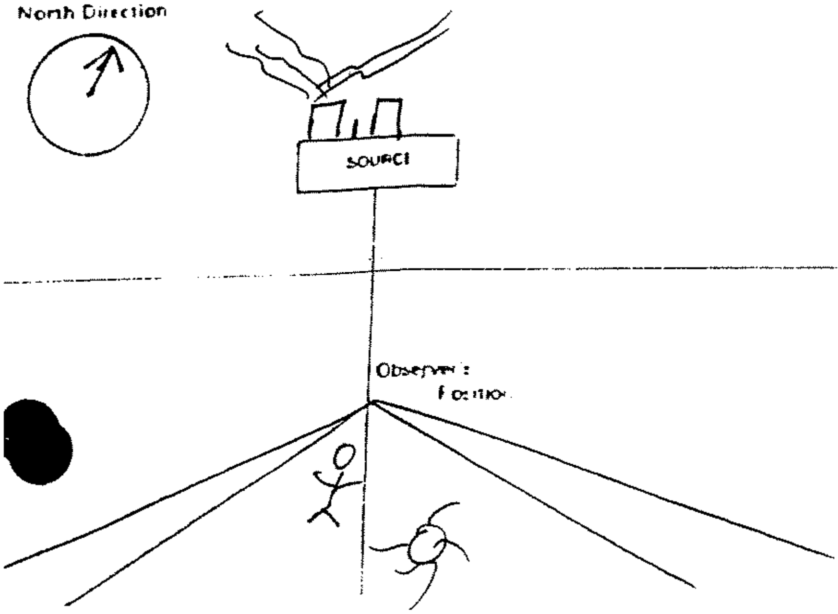
Signature: Brian O

Date: 11/14/06

Organization: UPPS

Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Armand Standley

Title: Acting Co Gen Supt

Date: 11-17-06

243

RECORD OF VISUAL DETERMINATION OF OPACITY

	OBSERVATION DATE	START TIME	STOP TIME
LOCATION			

Type of Source	Type of Control Equipment
Describe Emission Point (top of stack, etc.)	
Height Above Ground Level: Feet	Height Relative to Observer: Feet
Distance from Observer: Yards	Direction from Observer

Description of Plume (stack exit only) ☐ Looping ☐ Trapping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color	Plume Type: ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present: ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined?

Describe Background (i.e. blue sky, trees, etc.)

Background Color	Sky Conditions
Wind Speed: mph	Wind Direction (i.e. from North to South)
Ambient Temperature: °F	Wet Temperature: °F / Relative Humidity: %

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity | Range of Opacity Reading: Min.: Max.:

COMMENTS:

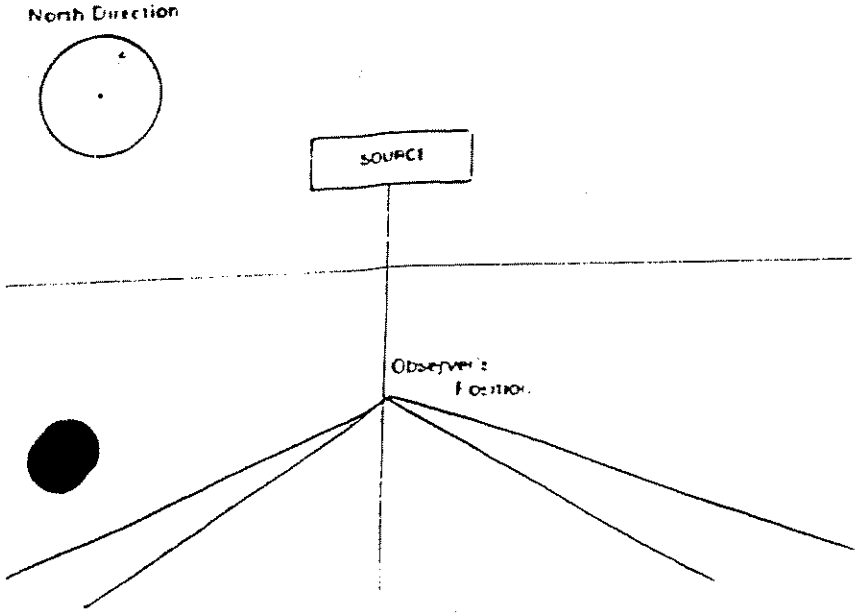
OBSERVER (please print) Name: Title:

Signature | Date

Organization | Certification Date

IMPORTANT: Please indicate the following by sketch:

Draw Arrow in North Direction



I acknowledge receipt of a copy of these visible emissions observations.

Signature: Leonard Stanley

Title: Acting Co Gen Supt

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

[hole punch]	OBSERVATION DATE	START TIME	STOP TIME 10:01

OCATION

Type of Source | Type of Control Equipment

escribe Emission Point (top of stack, etc.)

eight Above Ground Level Feet | Height Relative to Observer Feet

stance from Observer Yards | Direction from Observer

scription of Plume (stack exit only) ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

nission Color | Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent

ter Droplets Present? ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

what point in the plume was opacity determined?

escribe Background (i.e. blue sky, trees, etc.)

ckground Color | Sky Conditions

eed mph | Wind Direction (i.e. from North to South)

Temperature °F | Wet Temperature °F | Relative Humidity %

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0			17				
6					18				
7					19				
8					20				
9					21				
10					22				
11					23				
12					24				

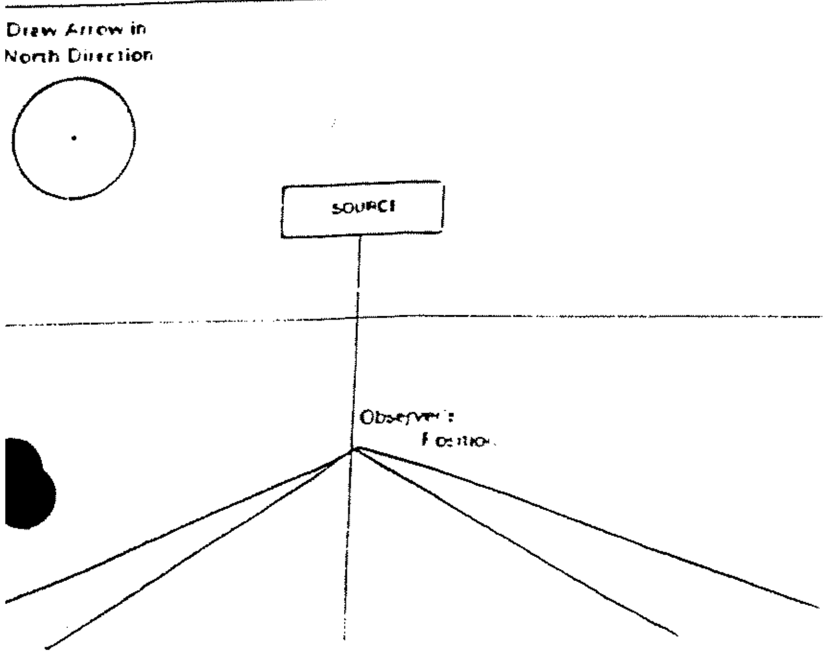
MMENTS: 2 Boiler stablized @ 10:01

Average Opacity | Range of Opacity Reading: Min.: Max.:

OBSERVER (please print) Name: Title:

Signature | Date

Organization | Certification Date



IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: Acting Co-[illegible] Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

Source: #3 Boiler Fuel/Oil

Location: TA3 SM22

Type of Source: Fuel Oil

Type of Control Equipment: N/A

Describe Emission Point (top of stack, etc.): Top of East Stack

Height Above Ground Level: 150 Feet

Height Relative to Observer: 170 Feet

Distance from Observer: 250'

Direction from Observer: SE

Description of Plume (stack exit only): ☒ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color: Black

Plume Type: ☐ Continuous ☐ Fugitive ☒ Intermittent

Water Droplets Present? ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? One Foot Above East Stack

Describe Background (i.e. blue sky, trees, etc.): Grey Cloudy Skies

Background Color: Grey

Sky Conditions: Cloudy

Wind Speed: 35 mph

Wind Direction (i.e. from North to South): From East to West

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: %

COMMENTS: Wind Gusting from 20-35mph & snow flurries

Observation Date: 11/14/06

Start Time: 12:20pm

Stop Time:

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	40	50	50
3	0	0	0	0	15	50	50	25	25
4	0	0	0	0	16	25	50	25	25
5	0	0	0	0	17	20	25	25	25
6	0	0	0	0	18	25	10	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	10	20
11	0	0	0	0	23	20	0	0	0
12	0	0	0	0	24	0	0	0	10

Average Opacity: 14.875 ~~15.12800~~

Range of Opacity Reading: Min.: 0.0 Max.: 50.0

OBSERVER (please print) Name: Brian Ortiz Title: Maint. Leadman

Signature: [signature]

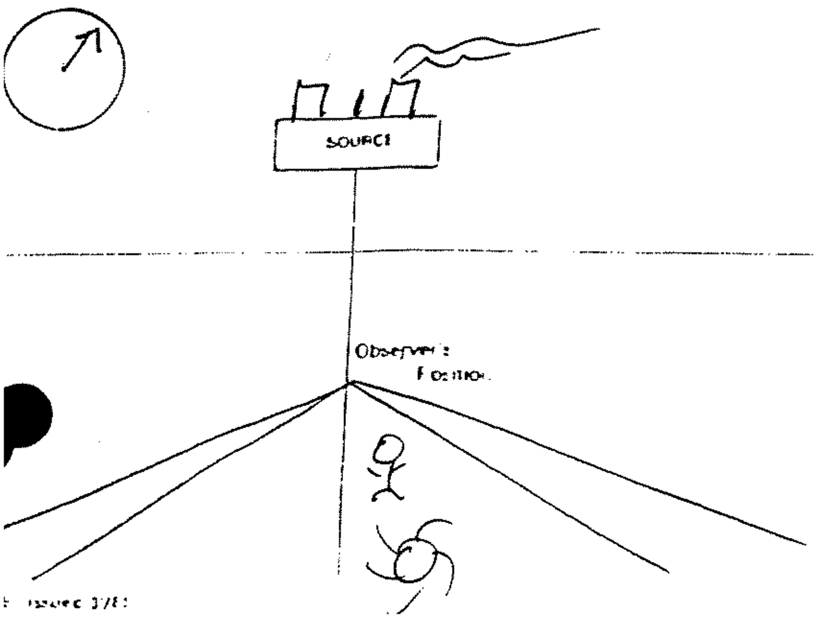
Date: 11-14-06

Organization: UPPS

Certification Date: 8-30-06

Draw Arrow in North Direction

IMPORTANT: Please indicate the following by sketch:



Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: Acting Co-Gen Supt.

Date: 11-17-06

2012

RECORD OF VISUAL DETERMINATION OF OPACITY

OBSERVATION DATE	START TIME	STOP TIME

OCATION

pe of Source	Type of Control Equipment
scribe Emission Point (top of stack, etc.)	
ight Above Ground Level Feet	Height Relative to Observer Feet
stance from Observer Yards	Direction from Observer

scription of Plume (stack exit only) ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

mission Color | Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent

ater Droplets Present? ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

what point in the plume was opacity determined?

scribe Background (i.e. blue sky, trees, etc.)

ckground Color | Sky Conditions

ind Speed mph | Wind Direction (i.e. from North to South)

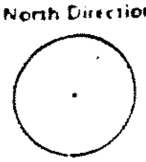
mbient Temperature °F | Wet Temperature °F | Relative Humidity %

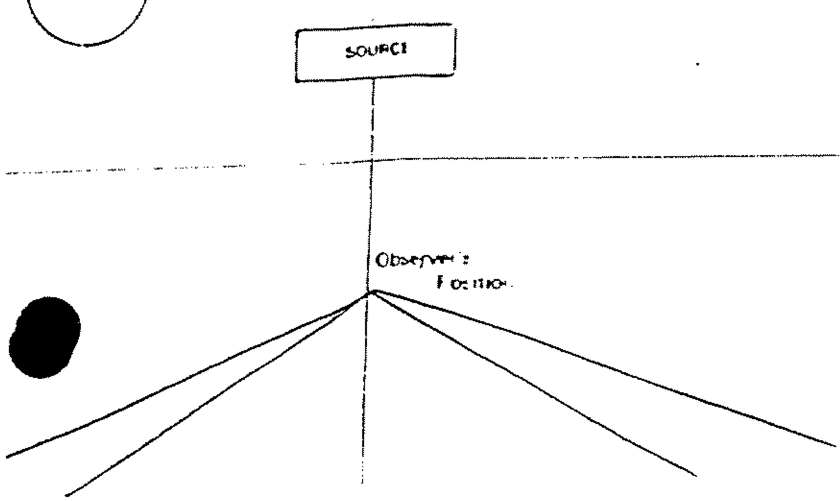
OMMENTS:

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	20	20	20	20	13	0	0	0	0
2	10	10	10	5	14	0	25	25	10
3	25	10	10	10	15	5	5	5	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	10	5
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	10	20	20
12	0	0	0	0	24	20	20	20	20

Average Opacity	Range of Opacity Readings Min.: Max.:
OBSERVER (please print) Name:	Title:
Signature	Date
Organization	Certification Date

Draw Arrow in North Direction





IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: Acting Co-Gen Supt.

Date: 11-17-06

3 of 3

RECORD OF VISUAL DETERMINATION OF OPACITY

OCATION

Type of Control Equipment

scribe Emission Point (top of stack, etc.)

ight Above Ground Level: Feet | Height Relative to Observer: Feet

stance from Observer: Yards | Direction from Observer

scription of Plume (stack exit only) ☐ Looping ☐ Fanning ☐ Coning ☐ Lofting ☐ Trapping ☐ Fumigation

mission Color | Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent

ter Droplets Present) ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

what point in the plume was opacity determined:

scribe Background (i.e. blue sky, trees, etc.)

kground Color | Sky Conditions

mph | Wind Direction (i.e. from North to South)

Temperature °F | Wet Temperature °F | Relative Humidity %

OMMENTS: stopped to Relocate And Operations Need to Fix A leak.

OBSERVATION DATE | START TIME | STOP TIME 1:16

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	20	10	10	10	13				
2	10	10	5	5	14				
3	5	5	5	5	15				
4	5	5	5	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7	0	0	0	0	19				
8					20				
9					21				
10					22				
11					23				
12					24				

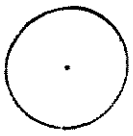
Average Opacity | Range of Opacity Readings Min.: Max.:

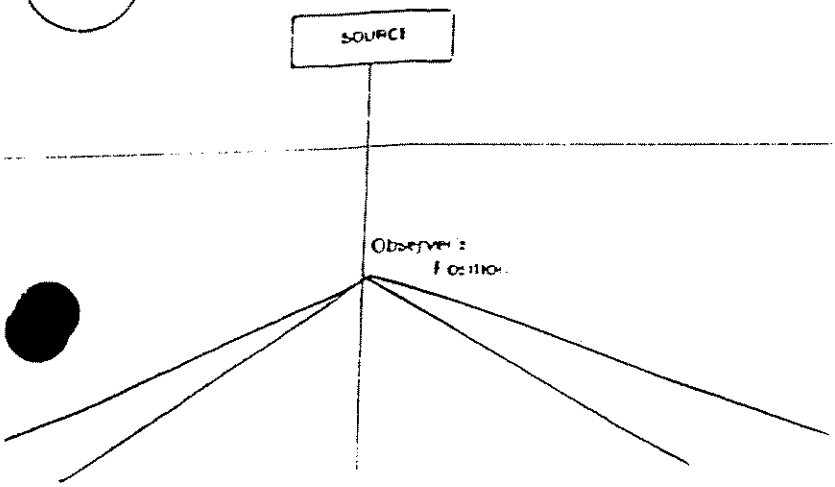
OBSERVER (please print) Name: Title:

Signature | Date

Organization | Certification Date

Draw Arrow in North Direction





IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Lemond Standley

Title: Refinery Operations Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

1 of 4

[redacted] #3 Boiler Fueloil	OBSERVATION DATE: 11/14/06
LOCATION: TA3 SMEZ	START TIME: 1:37
	STOP TIME: 2:42 pm

Type of Source	Type of Control Equipment
Fuel oil	N/A

Describe Emission Point (top of stack, etc.): Top of EAST Stack

Height Above Ground Level	Height Relative to Observer
150 Feet	170 Feet

Distance from Observer	Direction from Observer
25' ~~Feet~~	NW

Description of Plume (stack exit only): ☒ Rolling ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

Emission Color	Plume Type
Black	☐ Continuous ☐ Fugitive ☑ Intermittent

Water Droplets Present: ☒ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? One foot Above EAST Stack

Describe Background (i.e. blue sky, trees, etc.): Grey skies

Background Color	Sky Conditions
Grey	Cloudy

[redacted] Speed	Wind Direction (i.e. from North to South)
30 mph	West to EAST

[redacted] Temperature	Wet Temperature	Relative Humidity
°F	°F	%

COMMENTS: Gusty winds, SNOW Flurries

Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 0.00 %

Range of Opacity Reading: Min.: 0.0 Max.: 0.0

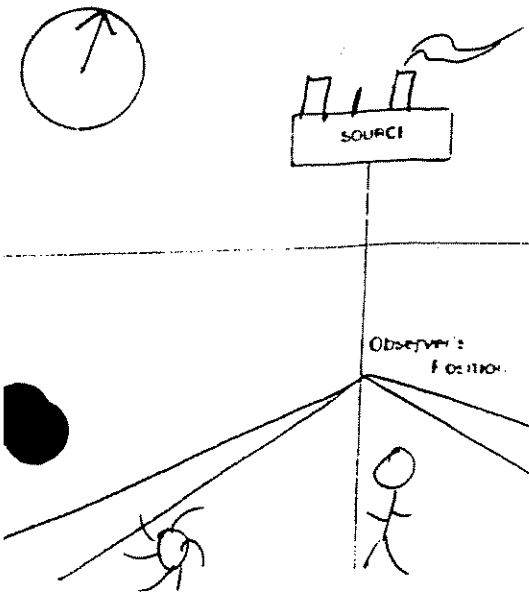
OBSERVER (please print)

Name: [redacted] Title: Maint. Leadman

Signature: [redacted] Date: 11/14/06

Organization: UPPS Certification Date: 8-30-06

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

I acknowledge receipt of a copy of this visible emissions observations.

Signature: [redacted]

Title: Refinery Operations Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

244

	OBSERVATION DATE	START TIME	STOP TIME
[redacted]			

LOCATION

Type of Control Equipment

Describe Emission Point (top of stack, etc.)

Height Above Ground Level: Feet

Height Relative to Observer: Feet

Distance from Observer: Yards

Direction from Observer

Description of Plume (stack exit only) ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation ☐ Lofting ☐ Trapping

Emission Color

Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent

Water Droplets Present: ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined?

Describe Background (i.e. blue sky, trees, etc.)

Background Color

Sky Conditions

Wind Speed: mph

Wind Direction (i.e. from North to South)

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: %

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity

Range of Opacity Readings: Min.: Max.:

COMMENTS:

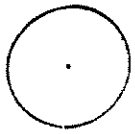
OBSERVER (please print)

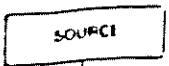
Name: Title:

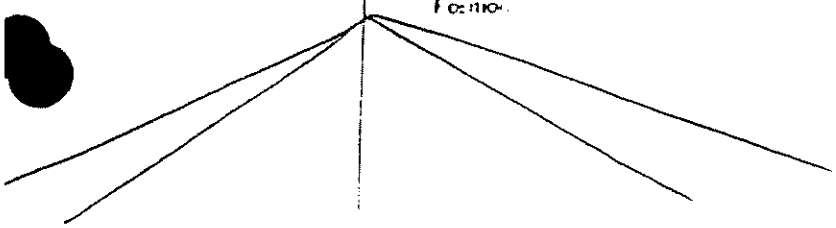
Signature Date

Organization Certification Date

Draw Arrow in North Direction







IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

1 North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: Samuel Standley

Title: Access Control Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

3/14

...t	
...CATION	
...e of Source	Type of Control Equipment
...scribe Emission Point (top of stack, etc.)	
...ight Above Ground Level Feet	Height Relative to Observer Feet
...tance from Observer Yards	Direction from Observer
...scription of Plume (stack exit only) ☐ Lofting ☐ Trapping ☐ Coning ☐ Fumigation ☐ Looping ☐ Fanning	
...ission Color	Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent
...ter Droplets Present? ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached	
...what point in the plume was opacity determined?	
...scribe Background (i.e. blue sky, trees, etc.)	
...ckground Color	Sky Condition:
...peed mph	Wind Direction (i.e. from North to South)
...Temperature °F	Wet Temperature °F / Relative Humidity %

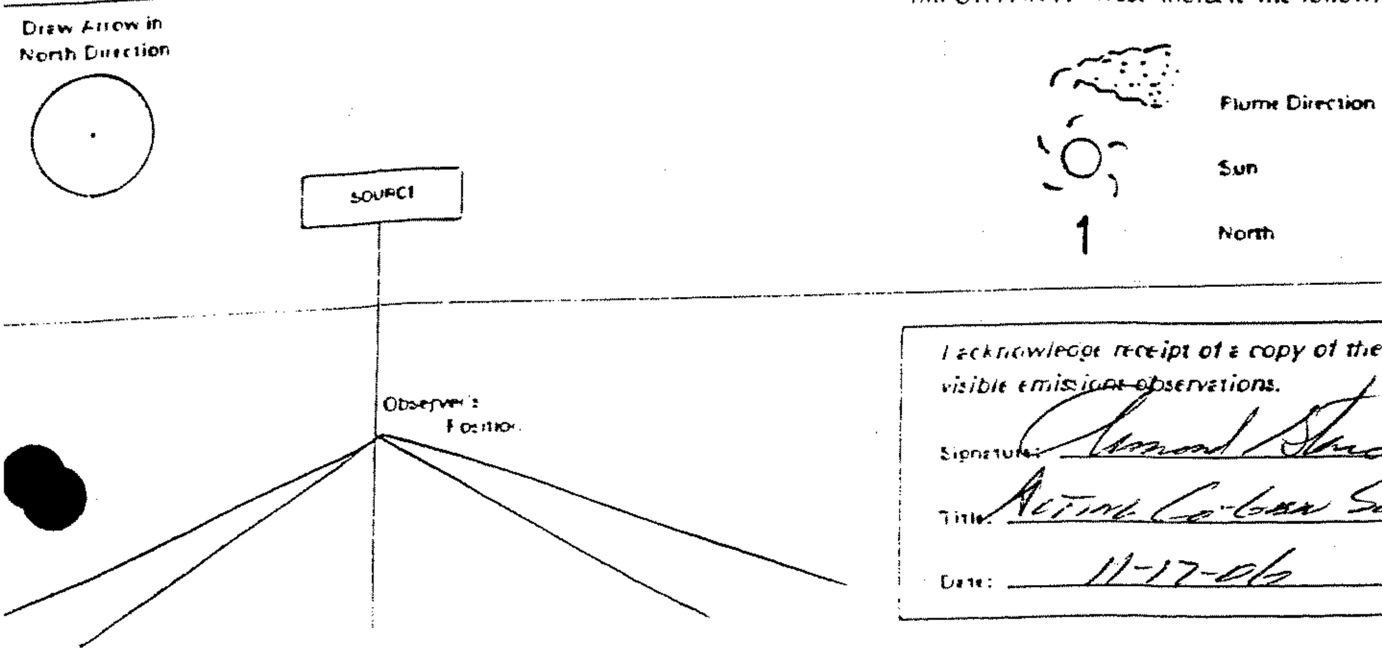
...OMMENTS:

OBSERVATION DATE	START TIME	STOP TIME

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity	Range of Opacity Reading: Min.: Max.:
OBSERVER (please print) Name:	Title:
Signature	Date
Organization	Certification Date

IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emission observations.

Signature: [signature]

Title: Acting Co-Gen Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

4 of 4

	OBSERVATION DATE	START TIME	STOP TIME 242

OCATION

rpe of Source | Type of Control Equipment

scribe Emission Point (top of stack, etc.)

ight Above Ground Level ____ Feet | Height Relative to Observer ____ Feet

stance from Observer ____ Yards | Direction from Observer

scription of Plume (stack exit only) ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation

nission Color | Plume Type ☐ Continuous ☐ Fugitive ☐ Intermittent

ter Droplets Present? ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

what point in the plume was opacity determined?

scribe Background (i.e. blue sky, trees, etc.)

ckground Color | Sky Conditions

peed ____ mph | Wind Direction (i.e. from North to South)

Temperature ____ °F | Wet Temperature ____ °F | Relative Humidity ____ %

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13				
2	0	0	0	0	14				
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7	0	0	0	0	19				
8	0	0	0	0	20				
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0			23				
12					24				

MMENTS: Stopped Reading At 2:42pm
#3 Boiler

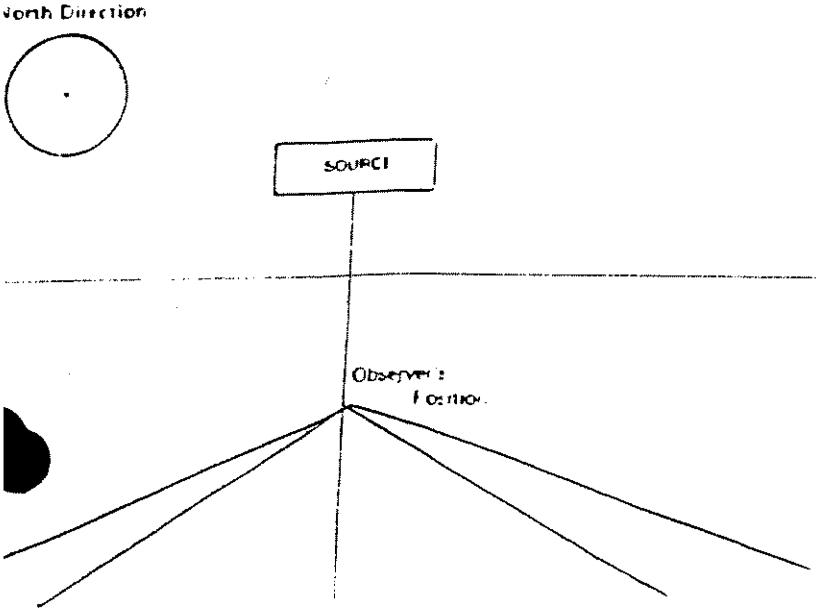
Average Opacity | Range of Opacity Readings: Min.: Max.:

OBSERVER (please print) Name: Title:

Signature | Date

Organization | Certification Date

Draw Arrow in North Direction



IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: Acting Co-Gen Supt.

Date: 11-17-06

RECORD OF VISUAL DETERMINATION OF OPACITY

pG - 1

Source: FUEL OIL BOILER #3

Location: TA 3 SM 22 POWER PLANT

Type of Source: FUEL OIL

Type of Control Equipment: NA

Describe Emission Point (top of stack, etc.): TOP OF EAST STACK

Height Above Ground Level: 150 Feet

Height Relative to Observer: 170 Feet

Distance from Observer: 74 Yards

Direction from Observer: SE

Description of Plume (stack exit only): ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation NONE

Emission Color: BLACK

Plume Type: ☐ Continuous ☑ Fugitive ~~☑ Intermittent~~ NONE LP

Water Droplets Present: ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

At what point in the plume was opacity determined? TOP OF STACK EAST

Describe Background (i.e. blue sky, trees, etc.): BLUE SKY

Background Color: BLUE

Sky Conditions: CLEAR

Wind Speed: 2 mph

Wind Direction (i.e. from North to South): S TO N

Ambient Temperature: °F

Wet Temperature: °F

Relative Humidity: %

COMMENTS:

Observation Date: 11-21-06

Start Time: 09:25

Stop Time: 1036

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 0

Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)

Name: LEONARD PACHECO Title: OPERATER

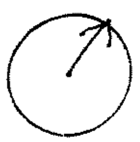
Signature: [signature]

Date: 11-21-06

Organization: KSL

Certification Date: 8-06

Draw Arrow in North Direction

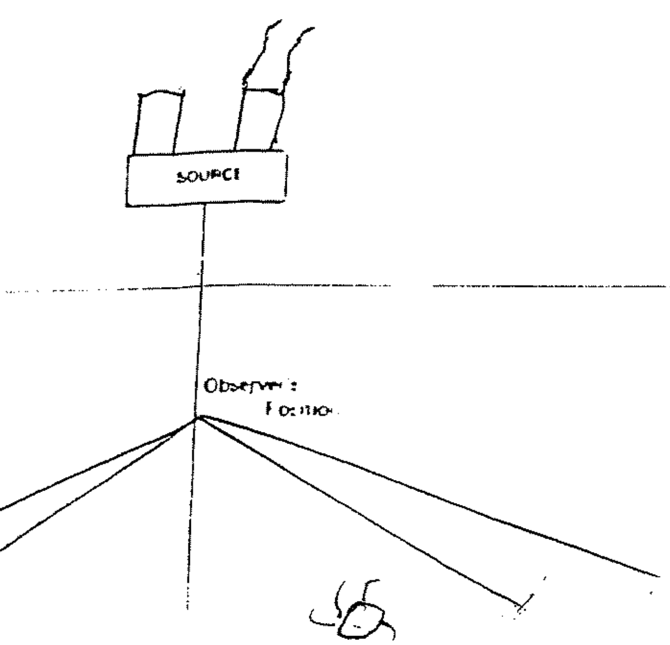


IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

North



I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: KSL/WESTO ACTING CO-GEN SUPT

Date: 11-21-06

RECORD OF VISUAL DETERMINATION OF OPACITY

PG- 2

Source: FUEL OIL ON BOILER #3
Location: TA 3 SM 22 POWER PLANT
Type of Source: FUEL OIL
Type of Control Equipment: NA
Describe Emission Point (top of stack, etc.): TOP OF EAST STACK
Height Above Ground Level: 150 Feet
Height Relative to Observer: 170 Feet
Distance from Observer: 74 Yards
Direction from Observer: SE
Description of Plume (stack exit only): ☐ Lofting ☐ Trapping ☐ Looping ☐ Fanning ☐ Coning ☐ Fumigation NONE
Emission Color: BLACK
Plume Type: ☐ Continuous ☐ Fugitive ~~☐ Intermittent~~ NONE
Water Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined? TOP OF EAST STACK
Describe Background (i.e. blue sky, trees, etc.): BLUE SKY
Background Color: BLUE
Sky Conditions: CLEAR
Wind Speed: 0-4 mph
Wind Direction (i.e. from North to South): S ~~NW~~ NW
Ambient Temperature: °F
Wet Temperature: °F
Relative Humidity: %
COMMENTS:

Observation Date: 11-21-06
Start Time: 09:25
Stop Time: 1036

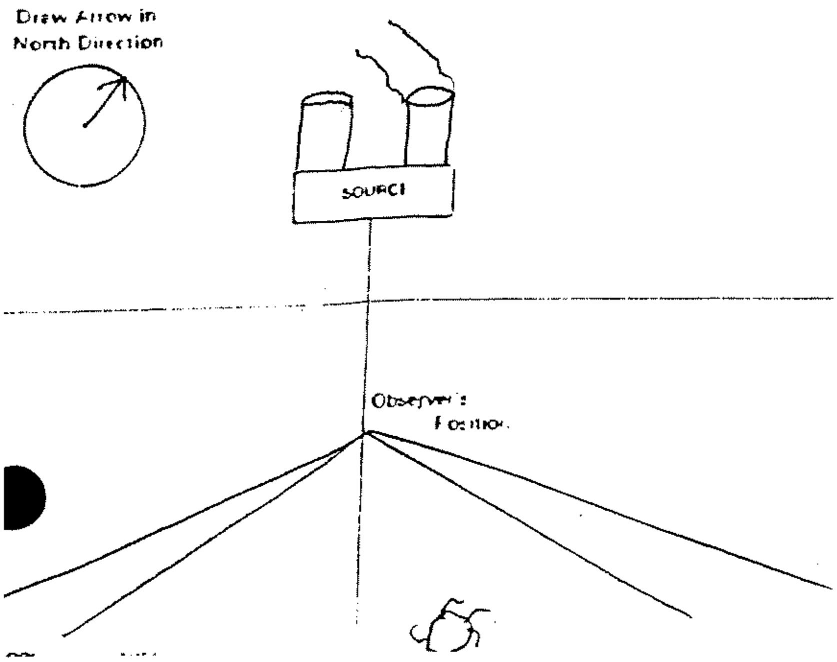
Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 0
Range of Opacity Readings: Min.: 0 Max.: 0

OBSERVER (please print)
Name: LEONARD PACHECO Title: OPERATER
Signature: [signature] Date: 11-21-06
Organization: KSL Certification Date: 8-06

IMPORTANT: Please indicate the following by sketch:

Draw Arrow in North Direction



I acknowledge receipt of a copy of these visible emissions observations.
Signature: [signature]
Title: KSL/MESB ACTING CO-GEN SUPT
Date: 11-21-06

RECORD OF VISUAL DETERMINATION OF OPACITY

pg 3

[Sou]rce	FUEL OIL ~~Oil~~ BOILER #3
[Lo]cation	TA 3 SM 22 POWERPLANT
[Ty]pe of Source	FUEL OIL
Type of Control Equipment	NA
[De]scribe Emission Point (top of stack, etc.)	TOP OF EAST STACK
[He]ight Above Ground Level	150 Feet
Height Relative to Observer	170 Feet
[Di]stance from Observer	74 Yards
Direction from Observer	S.E.
[De]scription of Plume (stack exit only)	☐ Lofting ☐ Trapping ☐ Coning ☐ Fumigation ☐ Looping ☐ Fanning — NONE
[E]mission Color	BLACK
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent — IF NONE
[W]ater Droplets Present?	☑ NO ☐ YES — If YES, droplet plume is ☐ Attached ☐ Detached
[A]t what point in the plume was opacity determined?	TOP OF EAST STACK
[De]scribe Background (i.e. blue sky, trees, etc.)	BLUE SKY
[B]ackground Color	BLUE
Sky Condition	CLEAR
[W]ind Speed	0-2 mph
Wind Direction (i.e. from North to South)	S TO N.W
[Ambie]nt Temperature	°F
Wet Temperature	°F
Relative Humidity	%

OBSERVATION DATE	START TIME	STOP TIME
11-21-06	0925	1036

Min. \ Sec	0	15	30	45	Min. \ Sec	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24				

Average Opacity: 0

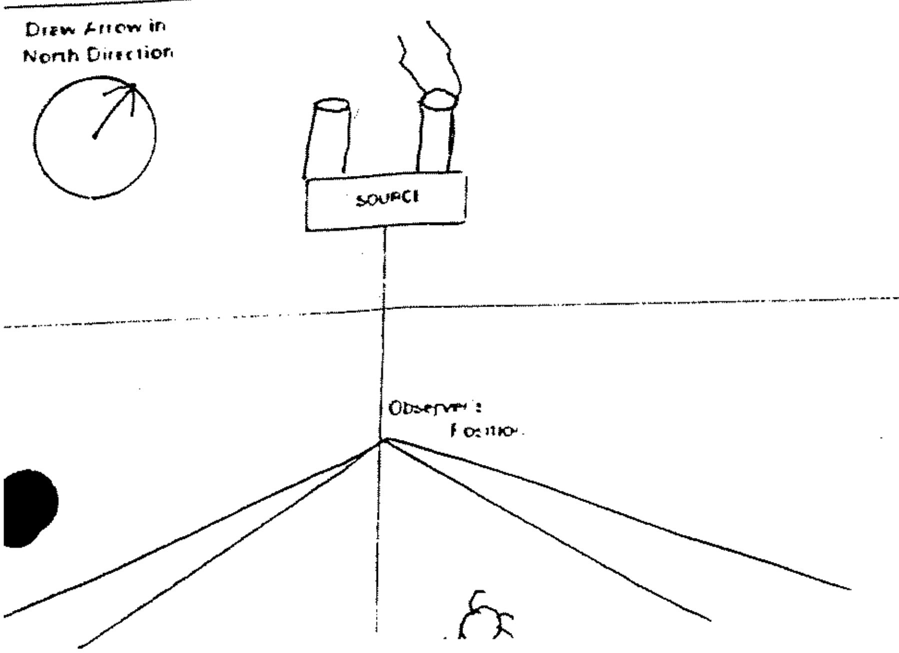
Range of Opacity Readings: Min.: 0 Max.: 0

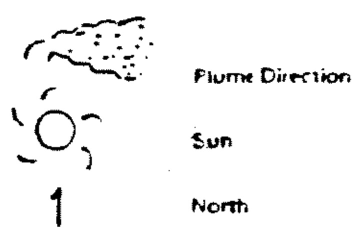
COMMENTS:
#4 BURNER LIT AT 10:25 AND STABLE.

11:00 BURNER #4 OFF AND NO LONGER ON FUEL OIL.

OBSERVER (please print)
Name: LEONARD PACHECO Title: OPERATOR
Signature: [signature] Date: 11-21-06
Organization: KSL Certification Date: 8-06

IMPORTANT: Please indicate the following by sketch:





I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: KSL/MSSB ACTING CO-LEN SUPT.

Date: 11-21-06

RECORD OF VISUAL DETERMINATION OF OPACITY pg 1

URCE
FUEL OIL #3 BOILER

CATION
A 3 SM 22 POWER PLANT

pe of Source
FUEL OIL

Type of Control Equipment
NA

scribe Emission Point (top of stack, etc.)
TOP OF EAST STACK

ight Above Ground Level
156 Feet

Height Relative to Observer
170 Feet

stance from Observer
74 Yards

Direction from Observer
S.E.

scription of Plume (stack exit only) ☐ Looping ☐ Fanning ☑ Coning ☐ Lofting ☐ Trapping ☐ Fumigation

nission Color
BLACK

Plume Type ☐ Continuous ☐ Fugitive ☑ Intermittent

ter Droplets Present? ☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

t what point in the plume was opacity determined?
TOP OF EAST STACK

scribe Background (i.e. blue sky, trees, etc.)
BLUE & WHITE SKY

ckground Color
BLUE & WHITE

Sky Conditions
BROKEN

ind Speed
0-2 mph

Wind Direction (i.e. from North to South)
N.S.

mbient Temperature °F

Wet Temperature °F

Relative Humidity %

MENTS:

OBSERVATION DATE: 12-14-06

START TIME: 08:43

STOP TIME: 0945

Sec / Min.	0	15	30	45	Sec / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	0	0	0	0	21	0	0	0	0
10	0	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	0
12	0	0	0	0	24	0	0	0	0

Average Opacity: 2.375 0.4 DP 1-25-07

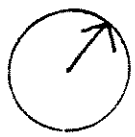
Range of Opacity Readings: Min.: 0 Max.: 25

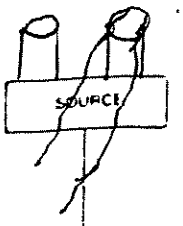
OBSERVER (please print)
Name: LEONARD PACHECO Title: OPERATOR

Signature: [signature] Date: 12-14-06

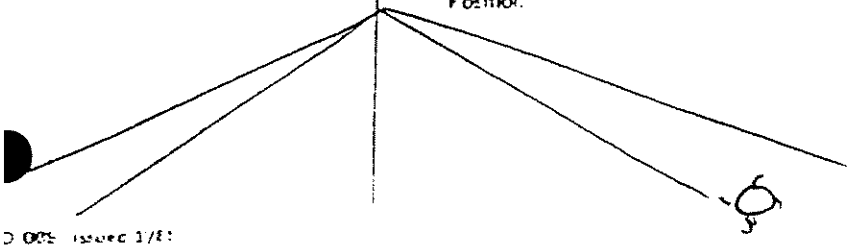
Organization: KSL Certification Date: 8-06

Draw Arrow in North Direction





Observer's Position



IMPORTANT: Please indicate the following by sketch:

Plume Direction

Sun

1 North

I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: REFINERY CO-GEN SUPT.

Date: 12-14-06

D 005 Issued 1/81

RECORD OF VISUAL DETERMINATION OF OPACITY 2

SOURCE	Fuel Oil # 3 Plant
LOCATION	Ta 3 SM 22 P.P.
Type of Source	Fuel Oil
Type of Control Equipment	NA
Describe Emission Point (top of stack, etc.)	Top of Stack (East)
Height Above Ground Level	Same Feet
Height Relative to Observer	Same Feet
Distance from Observer	Same Yards
Direction from Observer	S.E.
Description of Plume (stack exit only)	☐ Looping ☐ Fanning ☑ Coning ~~☐ Fluctuation~~ ☐ Lofting ☐ Trapping
Emission Color	Black
Plume Type	☐ Continuous ☐ Fugitive ☑ Intermittent
Water Droplets Present	☑ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached
At what point in the plume was opacity determined	Top of East Stack
Describe Background (i.e. blue sky, trees, etc.)	White Clouds
Background Color	White
Sky Conditions	Overcast
Wind Speed	Same mph
Wind Direction (i.e. from North to South)	Same
Ambient Temperature	°F
Wet Temperature	°F
Relative Humidity	%

OBSERVATION DATE	START TIME	STOP TIME
12-14-06	0843	0945

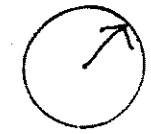
Sec. / Min.	0	15	30	45	Sec. / Min.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15	0	0	0	0
4	0	0	0	0	16	0	0	0	0
5	0	0	0	0	17	0	0	0	0
6	0	0	0	0	18	0	0	0	0
7	0	0	0	0	19	0	0	0	0
8	0	0	0	0	20	0	0	0	0
9	20	20	25	25	21	0	0	0	0
10	5	0	0	0	22	0	0	0	0
11	0	0	0	0	23	0	0	0	25
12	0	0	0	0	24	25	25	5	0

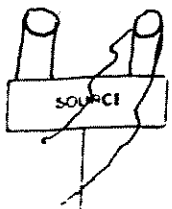
Average Opacity: 2.375 % 12/25/07 Range of Opacity Reading: Min.: 0 Max.: 25

COMMENTS:

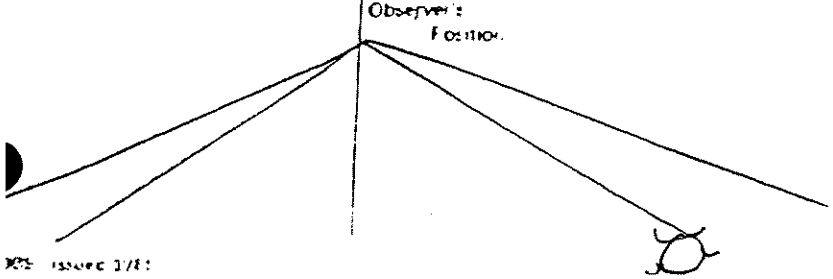
OBSERVER (please print)
Name: Leonard Pacheco Title: Operator
Signature: Date: 12-14-06
Organization: VCSL Certification Date: 8-06

Draw Arrow in North Direction





IMPORTANT: Please indicate the following by sketch:



I acknowledge receipt of a copy of these visible emissions observations.

Signature: Leonard Pacheco

Title: Acting Co-Gen Supt.

Date: 12-14-06

EPA Issued 2/81

RECORD OF VISUAL DETERMINATION OF OPACITY

ICE SAME

ATION SAME

of Source SAME | Type of Control Equipment N-A.

ribe Emission Point (top of stack, etc.) SAME

ht Above Ground Level SAME Feet | Height Relative to Observer SAME Feet

ance from Observer SAME Yards | Direction from Observer SAME

cription of Plume (stack exit only) ☐ Looping ☐ Fanning ☑ Coning ☐ Lofting ☐ Trapping ☐ Fumigation

ssion Color SAME | Plume Type ☐ Continuous ☐ Fugitive ☑ Intermittent

er Droplets Present? ☐ NO ☐ YES If YES, droplet plume is ☐ Attached ☐ Detached

What point in the plume was opacity determined? SAME

cribe Background (i.e. blue sky, trees, etc.) BLUE SKY - WHITE CLOUDS

kground Color BLUE WHITE | Sky Conditions OVERCAST

nd Speed SAME mph | Wind Direction (i.e. from North to South) SAME

nbient Temperature °F | Wet Temperature °F | Relative Humidity %

OBSERVATION DATE | START TIME | STOP TIME 0945

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	13	0	0	0	0
2	0	0	0	0	14	0	0	0	0
3	0	0	0	0	15				
4	0	0	0	0	16				
5	0	0	0	0	17				
6	0	0	0	0	18				
7	0	0	0	0	19				
8	0	0	0	0	20				
9	0	0	0	0	21				
10	0	0	0	0	22				
11	0	0	0	0	23				
12	0	0	0	0	24				

Average Opacity 2.375 Date 12/14/06 | Range of Opacity Readings Min.: 0 Max.: 25

OBSERVER (please print) Name: LEONARD PACHECO Title: OPERATOR

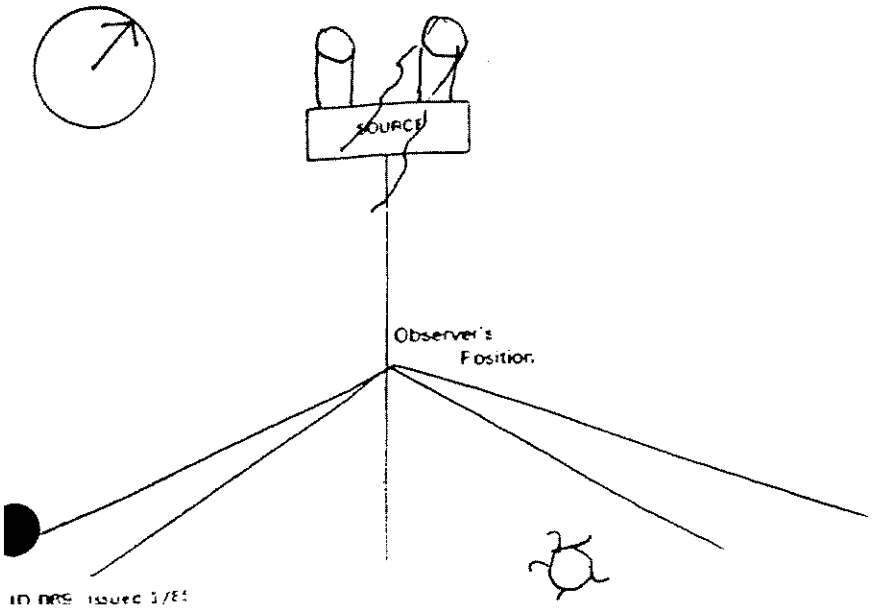
Signature [signature] Date 12-14-06

Organization KSL | Certification Date 8-06

COMMENTS:
#6 BURNER ON AND STABLE 0938

IMPORTANT: Please indicate the following by sketch:

Draw Arrow in North Direction



I acknowledge receipt of a copy of these visible emissions observations.

Signature: [signature]

Title: ACTING CO-GEN SUPT

Date: 12-14-06

ID DRS Issued 1/85